Implementing Snack Policies: A Multiple Case Study Analysis

BY

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THESIS
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<tr>
<td>AHG</td>
<td>Alliance for a Healthier Generation</td>
</tr>
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<td>AFHK</td>
<td>Action for Healthy Kids</td>
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<td>BMI</td>
<td>Body Mass Index</td>
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<tr>
<td>CDC</td>
<td>Centers for Disease Control and Prevention</td>
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<tr>
<td>CIT</td>
<td>Contextual Interaction Theory</td>
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<tr>
<td>CFB</td>
<td>Competitive Foods and Beverages</td>
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<td>CNRA</td>
<td>Child Nutrition and Special Supplemental Nutrition Program for Women, and Children (WIC) Reauthorization Act</td>
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<td>CNS</td>
<td>Child Nutrition Services</td>
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<tr>
<td>ECLS-K</td>
<td>Early Childhood Longitudinal Program—Kindergarten</td>
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<td>FRP</td>
<td>Free and Reduced Price</td>
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<td>FSD</td>
<td>Food Services Director</td>
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<td>HE</td>
<td>Health Education</td>
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<td>HHFKA</td>
<td>Healthy, Hunger-Free Kids Act</td>
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<td>HSP</td>
<td>Healthy Schools Program</td>
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<td>HUSSC: SL</td>
<td>HealthierUS School Challenge: Smarter Lunchrooms</td>
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<tr>
<td>IOM</td>
<td>Institute of Medicine</td>
</tr>
<tr>
<td>IRB</td>
<td>Institutional Review Board</td>
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<td>LWP</td>
<td>Local Wellness Policy</td>
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<td>Physical Education</td>
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<td>PEP</td>
<td>Physical Education Program</td>
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<td>PL</td>
<td>Public Law</td>
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<td>SBP</td>
<td>School Breakfast Program</td>
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<td>SES</td>
<td>Socioeconomic Status</td>
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<td>Abbreviation</td>
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<tr>
<td>SHAC</td>
<td>School Health Advisory Committee</td>
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<td>SHHPS</td>
<td>School Health Policies and Programs Study</td>
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<tr>
<td>SSB</td>
<td>Sugar-sweetened Beverage</td>
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<td>TA</td>
<td>Technical Assistance</td>
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<td>TDA</td>
<td>Texas Department of Agriculture</td>
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<td>TXSNP</td>
<td>Texas School Nutrition Policy</td>
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<td>UIC</td>
<td>University of Illinois at Chicago</td>
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<td>USDA</td>
<td>United States Department of Agriculture</td>
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<td>WIC</td>
<td>Women, Infants, and Children</td>
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SUMMARY

The Healthy, Hunger-free Kids Act (HHFKA) of 2010 gave the United States Department of Agriculture (USDA) authority to address the school snack (i.e., competitive food and beverages) environment for the first time in more than 30 years. The resulting regulation—Smart Snacks in School—required that school districts receiving federal funds for school meals must implement snack food and beverage standards by July 1, 2014. National reports on the current landscape of snack policies and availability indicate many school districts are far from meeting the Smart Snacks criteria, especially at the high school level. Unhealthy food and beverage items remain ubiquitous in various snack venues across high school campuses nationwide. It remains a critical time to inform the efforts of school districts and the technical assistance entities that work towards implementation of snack policies.

While the literature is increasingly supporting the link between snack policies and school level practices and student outcomes in a positive manner (Chriqui et al., 2014), there is a dearth of literature examining how these policies are translated into practice. Few studies examine the processes, including facilitators and barriers, toward implementation; in addition, few explicitly use conceptual frameworks to examine this field. Taken together, this study employed a multiple case study design to respond to the main research question: Among high schools with strong snack practices, what are the critical implementation factors? To this end, Contextual Interaction Theory (CIT) was utilized as a guiding conceptual framework; the main study aim was to adapt CIT in order to create a conceptual framework that specifically examines snack policy implementation.

This study reveals that snack policy implementation heavily depended upon the food service director (FSD), who assumed the role of the actor most responsible for implementation
SUMMARY (continued)

(i.e., implementing actor). Although these actors traditionally have low power in the school district, they were able to leverage varying sources of power—e.g., authority support, hard power of state law and district policy, and soft power—to engage other actors (e.g., authority actors, support actors, and target actors) in optimal interactions and move the implementation process forward. This process is illustrated in an adapted conceptual framework that also captures how the key CIT constructs of motivations, information, and power work to facilitate the process. In addition, the study reveals that even in these high schools with strong snack practices, challenges with monitoring and ongoing enforcement of the policy were prevalent. Further, the key motivations, both internal and external motivators, of the actors are discussed in detail. Actors described a strong internal motivation and orientation that snack policy implementation was the “right thing to do” and supportive of children’s health. However, actors also expressed concerns that the key focus for intervention should shift from the school to home environments.

The current study was shaped by policymakers, school health experts, and practitioners through study design and execution; as a result, is uniquely positioned to offer policy- and practice-relevant findings, as well as make a theoretical contribution. The results offer opportunities at federal, state, and local school district levels: the USDA can release additional regulations related to monitoring, ongoing enforcement, and reporting regarding adherence to the policy; states can adopt laws that reflect Smart Snacks and can add teeth to the laws with incentive and penalty provisions; and lastly, local school districts can also adopt Smart Snacks as part of their federally mandated wellness policies. These are a few of many opportunities addressing contextual and local factors that were identified by this study and can facilitate snack policy implementation at the school level. From a theoretical perspective, the adapted conceptual framework aims to be a starting point upon which the literature can build upon to better
understand the phenomenon of snack policy implementation. It is in comparing apples to apples that the evidence base can best inform school level practices and outcomes, and it remains a critical time in the field of school food reform to continue towards this goal.
I. INTRODUCTION

A. **Background**

School health environments have been targeted by the public health field as an area for policy interventions with the potential for widespread impact on child and adolescent health (Institute of Medicine, 2012). In 2004, the Child Nutrition and Women, Infants, and Children (WIC) Reauthorization Act (CNRA) (P.L. 108-265, Section 204) included an unfunded mandate that all school districts participating in federal Child Nutrition Programs in the United States adopt and implement local wellness policies. These policies must address nutrition education, school meals, competitive foods and beverages, physical activity, and implementation. School districts had to have a local wellness policy in place by the beginning of the 2006–2007 school year.

More recently, The HHFKA reauthorized the wellness policy mandate, as well as added several new requirements, including provisions for monitoring and reporting on compliance. In addition, federal agencies were directed to provide technical assistance (TA) to facilitate policy implementation and to develop regulations to guide wellness policy development.

This study focuses on one provision of the local wellness policy—competitive foods and beverages, which are defined as all food and beverage items sold on the school campus during school hours that fall outside of the federal meal program. Such items can be found in vending machines, school stores, cafeteria á la carte, classroom parties, school events, and fundraisers. The HHFKA also gave the USDA authority to develop nutrition standards for school snacks that are—at minimum—in alignment with the Dietary Guidelines for Americans 2010. On February 8, 2013, a proposed rule for competitive food and beverage standards: “Smart Snacks in School” was released (USDA, 2013). The proposed rule outlined the most stringent federal guidelines for competitive foods and beverages to date and was open for public comment for 60 days, during which time 2,200 unique comments (i.e., they were not form letters from mass-mail campaigns)
were submitted (ICF Incorporated, 2013). These comments helped to inform the interim rule, which was issued June 28, 2013 and required that standards must be implemented beginning July 1, 2014 (with the exception of the potable water provision, which was to be implemented by August 27, 2013) (USDA, 2013). The final rule is yet to be released. Since this interim rule, competitive foods and beverage policies are most commonly referred to as “Smart Snacks in School”; thus for the remainder of this paper, they will be referred to as “snack policies.”

The snack policy is one provision of a federal mandate that was adopted as a response to alarming trends in childhood and adolescent obesity in the United States over the last three decades. Schools are thought to be an optimal site for intervention since adolescents spend a majority of their week in this setting. This chapter begins with a brief background on childhood obesity and the role of schools in targeting this condition.

1. **Childhood obesity**

   Childhood obesity, or body fatness, is most commonly measured indirectly using the Centers for Disease Control and Prevention’s (CDC) 2000 growth charts for Body Mass Index (BMI) for age (Kuczmarski et al., 2002). The BMI is calculated by weight (in kilograms) divided by height (in meters squared). Overweight is defined as equal to, or greater than 85th percentile (but less than 95th percentile); obese is defined as 95th percentile and above (Kuczmarski et al., 2002). The BMI is a crude measure of body fatness (Ogden et al., 2012); however, it is considered the most feasible option for population level analysis.

   a. **Rates of childhood obesity in the United States**

   Childhood obesity rates overall have stabilized in the last ten years; however, they remain almost triple the rate from thirty years ago (Ogden et al., 2012). The most recent report by Ogden and colleagues (2012) analyzed National Health and Nutrition
Examination 2009–2010 data and reported childhood obesity prevalence at 18% (95% CI 16.3–19.8%) among children 6–11 years, and 18.4% (95% CI 15.8–21.3%) among adolescents 12–19 years. According to the authors, prevalence of overweight was higher for children 6–11 years at 32.6% (95% CI 30.1–35.2), and for adolescents 12–19 years at 33.6% (95% CI 30.9–36.0%).

From 2000 to 2012, obesity trends have significantly increased for males 2–19 years (OR, 1.05; 95% CI 1.01–1.10) but not females; in addition, non-Hispanic black males (OR, 1.10; 95% CI 1.03–1.17) experienced an increasing trend of obesity prevalence (Ogden et al., 2012). Southern state had the highest rates of childhood and adolescent obesity (Trust for America’s Health, 2013). In the year 2011, the rates of obesity for 10 to 17 year olds was highest in Mississippi (21.7%), South Carolina (21.5%), and the District of Columbia (21.4%) (Trust for America’s Health, 2013).

As is observed in adults, significant disparities between racial and ethnic groups were observed in childhood obesity prevalence from 2000 to 2012 (Ogden et al., 2012). From 1999 to 2010, the odds of being obese were 1.27 higher (95% CI, 1.09–1.48) for non-Hispanic black males, 1.99 (95% CI 1.69–2.35) higher for non-Hispanic black females compared to non-Hispanic white males and females (Ogden et al., 2012). These disparities were also observed in the most recent study years (2009–2010), where 21% (95% CI 19.5–23.0%) of Hispanic children and 24.3% (95% CI 20.5–28.6%) of non-Hispanic black children were obese (Ogden et al., 2012).

b. **Adverse impacts of childhood obesity**

Childhood obesity is associated with a range of conditions: diabetes, hypertension, asthma and respiratory infection, cardiovascular disease, sleep apnea, orthopedic problems, and gallbladder disease (CDC, 2012). It is important to note that most studies measure associations between obesity and related comorbidities, which does not elicit whether
obesity is causing the comorbid conditions, whether the comorbid condition is causing obesity, or whether both are due to an unknown third factor (Halfon et al., 2012). Further, emerging literature indicates new etiologies, such as exposure to biochemical compounds that remain largely unstudied to date (Guthman, 2013). Regardless of the hypothesized causal directions, it appears that such strong associations between obesity and chronic comorbid conditions earn cause for concern, as most share etiologies related to health behaviors. It may also be argued that in the absence of strong causal evidence, the public is better served if the field focuses on health behaviors instead of weight (Guthman, 2013).

A wide range of adverse health consequences related to adolescent obesity are documented. Obesity is linked to higher levels of stigma, discrimination, bullying, marginalization, low self-esteem, higher absentee days, and negative body image (Geier et al., 2007; Halfon et al., 2012; IOM, 2010; Pan et al., 2013). In addition, overweight and obese students more commonly report attention deficit disorders, conduct disorders, depression, learning disabilities, developmental delays, bone/joint/muscle problems, asthma, allergies, and ear infections (Halfon et al., 2012).

2. **Role of the school food environment**

Public health professionals, policymakers, and child health experts have responded to increasing childhood obesity trends with a call for interventions in schools (Robert Wood Johnson Foundation, 2012, IOM, 2007; Story et al., 2006). In the Institute of Medicine (IOM) report, *Accelerating Progress to Obesity Prevention*, schools are a key target sector, in addition to physical activity, food and beverage, healthcare, work, and message environments.

For decades, schools have been targeted as an optimal setting for health interventions. Children and adolescents are mandated to attend school during important years of physical, social, psychological, and intellectual development. Further, they attend school for at least half of
their time during the weekday, lending to the potential to impact daily health behaviors (Story, Nanney, & Schwartz, 2009; IOM, 2007). It is estimated that students consume one-third to one-half of their daily intake during school hours (Karakala, Keast, & Hoerr, 2009; Briefel, Wilson, & Gleason, 2009). All told, schools demonstrate strong potential to impact dietary habits.

Student health is intricately linked to the main mission of academic institutions, as healthier students are equipped with a solid foundation for optimal learning, and academic success is linked with long-term health (CDC, 2012; Basch, 2010). In addition, schools are settings where children and adolescents are socialized to learn a range of behaviors from peers and role models (e.g., teachers, staff, and older students). This type of informal learning has the potential to impact health behaviors in addition to formal curriculum (Story et al., 2009). To summarize, school environments offer opportunities to impact both immediate and long-term health and nutrition behaviors.

Experts recommend that in order to address the stark inequalities observed in childhood obesity rates, interventions should target children’s social and physical environments (Halfon et al., 2012). To this end, an investigation into how schools—as a key target sector—can be an equalizing environment to expose children and adolescents to healthy food environments is warranted (Crawford et al., 2011). For example, Brown et al. (2008) found that low-income children who participated in the School Breakfast Program (SBP) had better academic scores compared to peers who did not eat breakfast. Further, Crawford et al. (2011) and Kass et al. (2014) argued that schools have an ethical obligation to protect children and adolescents by providing the benefits of nutritionally optimal school foods and beverages.
3. **Federal school snack policies**

As a response to increasing childhood obesity rates, the United States Congress responded with federal legislation that aimed to improve the school health environment. This next section describes the federal school snack mandate.

In 2004, the CNRA hereafter referred to as Child Nutrition Act, was enacted by Congress to respond to the alarming trends of childhood obesity. This law required that all school districts receiving federal child nutrition program funds (e.g., National School Lunch Program or SBP) must create a local wellness policy with several components, including:

- nutrition promotion and education goals;
- physical activity and school-based activity goals;
- school meals consistent with federal meal guidelines and standards for all foods and beverages available on school campus during the school day; and
- implementation plans, designation of one or more persons in the district charged with overseeing local wellness policy implementation.

This mandate was to be in place by the beginning of the 2006–2007 school year, and did not require specific guidelines for any of the domains. In terms of implementation, there was also no required reporting on compliance and evaluation efforts. Lastly, no additional funding (beyond federal meal reimbursement) was provided to school districts.

In addition to wellness policy guidelines, the Child Nutrition Act also directed the Secretary of the USDA to provide TA in the form of “resources and training on designing, implementing, promoting, disseminating, and evaluating local school wellness policies and overcoming barriers to the adoption of local school wellness policies” (Child Nutrition and WIC Reauthorization Act, 2004). In addition, model wellness policies and “other technical assistance” were listed as deliverable content items that were to be provided.

In 2010, President Obama signed the Healthy, Hunger-free Kids Act (PL 111-296) and extended the local wellness policy provisions (Section 204) outlined in the Child Nutrition Act of 2004. In addition, HHFKA 2010 added several new requirements. First, HHFKA gave the USDA
authority to establish rules for school snack nutrition standards sold in schools throughout the school day. The rules specified that school snacks must meet the Dietary Guidelines for Americans 2010 and incorporate a range of other sources, such as current local and state policies and authoritative scientific recommendations (Healthy Hunger-free Kids Act, 2010). As a result, the USDA released the interim rule for “Smart Snacks in School” and required implementation by July 1, 2014. Second, HHFKA required that teachers of physical education (PE) and school health professionals—in addition to parents, students, school food authority members, school board, school administrators and the public—participate in the development of local wellness policies. Further, all collaborating members were to be involved in implementation of the policies with periodic review and updates (Healthy, Hunger-Free Kids Act, 2010).

The Smart Snacks rule was the most stringent standard to be released at the federal level and reflected recommendations by the IOM report for school foods (IOM, 2007). With respect to monitoring compliance, the rule holds the school food authority (i.e., food service departments) responsible for “maintaining records for foods served under the auspices of the nonprofit school food service” (USDA, 2013, p. 39084). The rule also recognized the challenges of recordkeeping and compliance monitoring for all other venues; for many at the school and school district, these are unprecedented roles and responsibilities. Ultimately, the district is held accountable for ensuring that “all entities involved in food sales . . . understand that the local education agency [school district] as a whole must comply . . . .” (USDA, 2013, p. 39084). Despite the stated challenges, the USDA (2013) asserted that recordkeeping and monitoring compliance were critical to maintaining the integrity of the rule and urged school districts to sort out issues and train the appropriate professionals. Further, the USDA suggested that the local school wellness coordinator be trained to lead efforts for monitoring and compliance. The department promised trainings from federal and state agencies to build these skills. State
agencies are held responsible for monitoring compliance to the Smart Snacks rule, as states already monitor school food service operations. However, with HHFKA, the USDA has new jurisdiction over foods sold outside of the school food service department. As mentioned in the Smart Snacks rule, the USDA is expected to release an additional proposed rule in the future that outlines the new extended monitoring responsibilities over the snack food environment.

The USDA worked with the Department of Health and Human Services and the Department of Education to provide information and TA for school districts, school food authorities, and state agencies to implement wellness policies (USDA, 2011). The three federal agencies formed the Local School Wellness Policy Interagency Workgroup, which developed resources and training on “designing, implementing, promoting, disseminating, and evaluating wellness policies” as well as overcoming barriers to the adoption of wellness policies (USDA, 2011, p. 1). The TA utilized evidence-based guidance for how schools can best promote healthy eating and physical activity in schools. The CDC released a TA document, *School Health Guidelines to Promote Healthy Eating and Physical Activity*, which serves as a guide or gold standard for how schools can create healthy environments (CDC, 2011).

According to the Interagency Workgroup’s five-year TA plan (USDA, 2011), a needs assessment was conducted, which included a survey with key experts, informal conversations with school nutrition professionals, and conversations with state, district, and local education administrators (USDA, 2011). The outcomes of this group were:

- five-year TA plan (2011–2015);
- update each department’s web pages with new guidance and resources;
- provide tools and resources that address the new requirements of the local wellness policies (LWPs);
- provide webinars on topics related to LWPs;
- create national and state partnerships to assist with implementation of the five-year plan;
- gather success stories and best practices specific to LWPs (USDA, 2011).
4. **State school snack policies and technical assistance**

The Child Nutrition Act created momentum for states to adopt their own wellness policies in the form of laws, guidelines, regulations, or model policies. Chriqui et al. (2014b) reported that in the 2012–2013 school year, 38 states had adopted snack standards; however, of these, only 16 states fully met USDA standards for one or more provisions. Masse et al. (2013) reported that while state laws targeting school snacks increased in stringency from 2003 to 2008, this was more often the case for state laws applicable at the elementary level, compared to middle and high school levels. For example, 51% of states did not have vending machine food standards and 47% of states did not have vending machine beverage standards applicable to high schools (Masse et al., 2013).

States can play a strong role in working toward healthier school food environments. The Smart Snack rule allows states to adopt more stringent standards and to set the number of allowable fundraising exemptions (USDA, 2013). Further, states can play a role in providing TA from statewide advisory and expert councils (Story et al., 2009; Taber et al., 2012a). For example, the Pennsylvania Department of Education mandated training sessions for FSDs, developed a policy template for school districts, and provided financial incentives (Probart et al., 2010). States provide guidance in the forms of model policies and policy guidance, as well as more direct, hands-on assistance from state- to district-level child nutrition services. The School Health Policies and Programs (SHPPS) (CDC, 2013) study reported that 66% of states provided policy assistance to school districts with “developing, implementing, and evaluating local wellness policies.” Seventy-eight percent of states provided more direct TA on creating guidelines for snacks during the year before the SHPPS study (CDC, 2013). Technical assistance efforts that may support implementation, such as improving the nutritional quality of school snacks, were provided by 86% of states (CDC, 2013). Lastly, states can adopt carrot-and-
stick measures that incentivize compliance or penalize noncompliance to snack standards (Gourdet et al., 2014). As of January 2013, half of the 36 states that had adopted snack laws had included carrot-and-stick schemes in their law (Gourdet et al., 2014). While such strategies are still not widespread, they provide an opportunity to strengthen the Smart Snack rule in its implementation, especially as a major concern is ongoing compliance with the policy (USDA, 2013). The impact of state law on school and student outcomes is discussed below.

5. **Impact of snack policies**

Since adoption of the federal wellness policy mandate, studies have measured the impact of snack policies on various school and student outcomes. The majority of studies examining outcomes can be grouped into relationships between snack policies and (1) availability and intakes of school snacks, and (2) changes to BMI at a population level (Chriqui et al., 2014). It is important to note that the majority of studies are cross-sectional and thus cannot infer causation. In addition, the nature of snack laws and regulations means that school districts cannot be randomized to implement the standards; thus, most are studied as natural experiments. Further, the majority of studies do not examine (or do not make explicit) the extent of policy implementation with relation to outcomes; rather, they measure associations between the presence/absence/strength of the policy and an outcome of interest. Thus, the relationships studied are similar to clinical intent-to-treat studies, which measure the outcome regardless of the dosage of treatment received, and therefore it may be understood as a conservative measure. Lastly, few studies analyze on-the-books policies (as opposed to self-reported policies), and many outcome measures (e.g., soda availability and consumption) are based on self-report from school professionals and students. All of these elements introduce the potential for measurement error, given that the literature demonstrates differential reporting by school
professional groups (Agron et al., 2010; McDonnell et al., 2006) and questions the reliability of self-reporting for energy intake (Dhurandhar et al., 2014).

Overall, the literature supports a relationship between state and school district policies limiting high-fat foods and sugary beverages to improvements of unhealthy food and beverage availability (Chriqui et al., 2012, Chriqui et al., 2014a; Fernandes et al., 2013; Hood et al., 2013; Robert Wood Johnson, 2012). This relationship tends to be stronger for junk food availability when both state and district policies are applied at the elementary level (Chriqui et al., 2013b); however, this was not observed in a recent study looking at soda bans at the high school level (Terry-McElrath et al., 2013b). A most recent systematic literature review by Chriqui et al. (2014a) concluded that snack policies were associated with a decrease in junk food availability; however, the relationship was mixed with respect to student consumption and BMI. The authors also noted that findings were based upon a body of literature that was mainly cross-sectional. Junk foods are described in wellness policy literature as snack and beverage items that are low-nutrient and energy-dense, such as high-fat cookies and sugar-sweetened beverages (SSBs) (Kubik et al., 2015).

Studies examining outcomes at the state level from California (Samuels et al., 2009; Peart et al., 2012), Connecticut (Long, Henderson, & Schwartz, 2010), Minnesota (Kubik et al., 2013), Arkansas (Phillips et al., 2011) and Texas (Cullen & Watson, 2009) supported the impact of state snack policies on decreasing access to unhealthy school snacks (Merlo et al., 2014). For example, in unique analyses, Taber et al. (2012b) compared California high school students’ intakes (where state standards were strong) with those of students from 14 states without school snack standards in 2009–2010. The authors found that Californian students reported a mean of 157.8 fewer calories, attributable mainly to intakes during school; in addition, lower intakes of fat, sugar, and calories were reported. A positive impact was also seen on availability of SSBs.
availability and consumption of soda drinks (Terry-McElrath, 2014b), and of low-nutrient snacks and sweets (Fernandes et al., 2013). Further, changes in access to unhealthy foods were notable relatively quickly after policy implementation (Cullen & Watson, 2009).

There are a small number of studies examining associations between school snack policies and BMI, leading to mixed results for the impact of policies (Chriqui et al., 2014). Taber et al. (2012a) reported that students in states that implemented strong state school snack policies consistently at the elementary and middle school gained 0.25 less BMI units (95% CI, -0.54, 0.03) compared to students in states with no laws. These same students also were less likely to remain overweight or obese between 5th and 8th grades (Taber et al., 2012a). Sanchez-Vaznaugh et al. (2010) analyzed height and weight data in Los Angeles Unified School District and California students after implementation of snack policies at both levels. The authors reported that the trend of overweight and obesity did not increase as quickly among 5th graders and 7th grade students overall. The study was not able to account for differences in the level of implementation at individual districts; in addition, while the study controlled for differences in individual, school, and district characteristics, it is possible that other external factors could have impacted this change in trend.

Several studies analyzed national data sets to examine the impact on BMI levels with mixed results. Anderson and Butcher (2006) analyzed SHPPS 2000 data (self-reported school food policy) and National Longitudinal Survey of Youth in 2000 (self-reported height and weight). This study reported that an increase in proportion of schools with junk food availability was associated with an increase in BMI; however, this relationship only held for students with higher BMI parents, not for students with normal BMI parents. Two studies analyzed Early Childhood
Longitudinal Survey—Kindergarten (ECLS-K) data sets\(^1\); further, Taber et al. (2012a) also analyzed ECLS-K data. Datar and Nicosia (2012) and Van Hook and Altman (2012) found no association between snacks in the school environment and changes in weight. It is important to note that measurements and statistical designs varied widely across studies, creating challenges to make an “apples-to-apples” comparison. For example, Datar and Nicosia (2012) used administrator reports of snacks policies and practices rather than on-the-books measures. While emergent, these general trends indicated that among the many factors that impact health behaviors, weight, and overall health of students, snack policies were one factor worthy of intervention.

B. **Statement of the Problem**

National reports indicated that both unhealthy and healthy school snacks remained ubiquitous—especially in high schools that consistently had the worst school food environments (USDA, 2012b; Johnston et al., 2014; CDC, 2013). The School Nutrition and Dietary Assessment (SNDA) IV study reported that nationally, 85% of high schools had vending machines and 90% of high schools sold á la carte foods and beverages (USDA, 2012b). Most recently, Johnston et al. (2014) reported that while availability of vending machines had decreased, 90% of high school students in 2013 still had access to them. Further, 83% of high school students had access to á la carte items.

School snacks consumed most often in high schools tend to be junk foods, low in nutrients and high in added calories, sugars, and fats (O'Toole et al., 2007; Guthrie et al., 2013). While there was a decrease in the availability of target items—such as SSBs and french fries—in 2013, 87% of high school students still attended a school where SSBs were sold (Johnston et al., 2014).

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al., 2014). Regular soft drink availability also decreased; between 2007 and 2013, the level of high school students with access to soda fell from 54% to 21%. However, regular pizza and french fries still remained available to 35% and 23% of students in any snack venue. Lastly, the report highlighted that high school students in low-socioeconomic status (SES) schools had less availability to fresh fruits, vegetables, salads, whole grains, french fries, and pizza, compared to students in high-SES schools. In other words, poorer students had less access to both healthy and unhealthy target items. Overall, access to healthy items did not significantly increase for both low- and high-SES students (Johnston et al., 2014).

Given the link between poor nutrition, adolescent obesity, chronic illness, and school performance, researchers and policymakers are concerned about the harmful contribution of such suboptimal school food environments to adolescents’ dietary intakes. Further, less often discussed is the potential for unhealthy school snack to replace foods and beverages richer in micronutrients that are critical for optimal development.

Despite national reports documenting the poor state of school snack environments, policies targeting this area remained the most controversial over the last three decades, receiving ongoing attention in academic and public arenas (Fried & Simon, 2007; IOM, 2007). These items were typically sold due to chronic underfunding of school programs (Graff, 2008) and stringent guidelines were perceived to cause a decrease in revenues for much-needed school programming. In general, secondary schools made more in revenues from school snacks than elementary schools (Guthrie et al., 2013). Increasingly, however, research is calling into question the concern that snack policy reform will lead to financial loss (Long et al., 2013; Bassler et al., 2013; Wharton, 2008; Guthrie et al., 2012, Guthrie et al., 2013). Further, much controversy over school snacks arose from ideological debates about government (over)reach in schools (ICF Incorporated, 2013). As evidenced by the recent political “food fight” in Washington
over school-meal guidelines (Porter & Armour, 2014), ideological and political support or opposition behind policies pertaining to school food reform often gives rise to inertia despite the growing body of evidence that support their effectiveness.

A recent nationally representative study of wellness policies revealed that while improvements have been seen over time, snack policies remained the weakest of the local wellness policy provisions (Chriqui et al., 2013a). Further, district policies applicable at the high school level were significantly less stringent, compared to elementary schools. While the Smart Snack deadline for implementation (July 1, 2014) has passed, historical trends suggest that the majority of schools nationwide were slow to adopt standards past the deadline. At the beginning of the 2010–2011 school year, only 61% of students nationwide were in a school district with school snack guidelines and 83% of students were in a district with implementation and evaluation plans in their wellness policy; however, the strength of these provisions was weak overall. Disconcertingly, during the 2009–2010 school year, fewer than 5% of district policies nationwide met or exceeded the nutrient requirements aligning with the Dietary Guidelines for Americans 2010 (Schneider et al., 2010). This may be explained by the slow rate of states to adopt snack standards, since school districts tend to follow state law for educational policies. As discussed, Chriqui et al. (2014b) reported that for school year 2012–2013, no state laws fully met the USDA standards on average across states. The authors suggested that the new Smart Snack standards would be a stretch for states, especially for food standards, given that no states aligned with all of the USDA standards in the 2012–2013 school year.

C. **Significance of the Proposed Research**

Ten years after the Child Nutrition Act of 2004, national surveillance of snack policies and school snack environments reveal room for improvement in both realms. It is an optimal time to take advantage of the Smart Snacks rule and cast light on the importance of implementation and
compliance monitoring. The current literature minimally examines how school districts struggling to implement such policies can best undertake these activities. Thus, as federal, state, and local school districts provide TA (CDC, 2013); there is a limited evidence base from which to inform these efforts. The potential burden of additional requirements, such as additional monitoring, compliance, and recordkeeping, is documented as a heavy one (ICF Incorporated, 2013; USDA, 2013). It is a critical time for the provision of TA (Trust for America’s Health, 2013) and there is an exigent need to build an evidence base for the implementation of school snack policies. This remains a critical gap.

To my knowledge, no studies use conceptual definitions or theoretical frameworks for the measurement of snack policy implementation. One recent study by Howie and Doyle (2014) outlined a conceptual model for physical activity policy; however, it was specific to factors related to policy implementation failure, which is related but an entirely different focus. While there are generations of implementation theory from political science and education literature (de Leon & deLeon, 2002; LaRoque, 1986; O’Toole, 2000), few public health studies have explored how these theories apply to the study of school snack policy implementation in schools. There is a need for public health studies that build upon the available body of implementation literature (Harriger et al., 2014).

The IOM (2010) report, Bridging the Evidence Gap in Obesity Prevention, called for more “natural experiments” in which policies would be implemented in their natural setting. Since recent school nutrition mandates were adopted in response to childhood obesity, the current examination of snack policies aims to serve as a response to this call. While looking broadly at school wellness policies (of which snack policies are one component), Harriger et al. (2014) also argued for more case studies, as cross-sectional designs were inadequate to examine the implementation processes as they occur over time. In addition, the authors asserted that case
study methods aptly captured the multiple stakeholder perspectives required for successful policy implementation. In their review of the overall wellness policy literature, the authors reported that only one study used a qualitative design to study this phenomenon. Case study research provides concrete, context-dependent data, which are valuable for knowledge accumulation and theoretical development in the social sciences (Flyvbjerg, 2006; Yin, 2009). Brownson et al. (2006) stated that multiple case studies can provide the most powerful and fruitful data to inform policy. In this way, findings from qualitative studies can make strong contributions to theoretical development and evidence-based public health practice (Jack, 2006).

In summary, there is a complex relationship between the policies that shape school food environments, the implementation of these policies, and district-level factors that may impact this relationship. There remains a gap in evidence related to implementation factors and best practices for TA, which is critical in this dynamic time after the Smart Snacks in School implementation deadline. Further, research could more effectively form an evidence-base if it were informed by conceptual framework and agreed-upon conceptual definitions. Such evidence would directly assist those who are creating resources and TA for school districts nationwide. For these reasons, the current study identifies the following main aim:

To examine an adapted conceptual model for the examination of school snack policy implementation.

To achieve this main aim, I explored high schools with exemplary practices to understand what facilitated or hindered the process of snack policy implementation. The research was guided by the overarching research question:

Among high schools with strong school snack practices, what are the critical implementation factors?
The following section outlines the conceptual definition, framework, and constructs that were employed to examine this research question. Further, the literature specific to the key phenomenon is discussed.
II. CONCEPTUAL FRAMEWORK

A. **Definition of Snack Policy Implementation**

To my knowledge, there are few definitions of LWP implementation and no definitions of competitive food and beverage policy or snack implementation in the literature (Harriger et al., 2013). This is problematic, as frequently researchers unclearly conceptualize the phenomenon and also operationalize its components inconsistently. While a broader range of seminal policy implementation works was considered for the purpose of this study—e.g., Pressman and Wildovsky (1983); Sabatier and Mazmanian (1983)—definitions were selected from literature that was germane to local wellness and public health policies.

Several definitions for snack policy implementation were considered for this study. Budd et al. (2012) described a “policy-to-action continuum” that suggested there is movement from policy to action (i.e., practices). Sanchez et al. (2014, p. 2) defined implementation as the “translation of policies (written statements of intent) into sustainable practices (organizational changes, procedures, or interventions).” This definition encompasses a main action (policy to practice) and includes the intentions or objectives at which the policy is directed. It also suggests that the practices must be sustainable and likely involve changes in many realms. Erlich (2012, p. 9) defined school wellness policy implementation as “the extent to which each component of the policy implementation framework is actually executed.” This definition does not include a consideration for sustainability. Lastly, Jilcott (2007) utilizes the RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) framework for public health policy and defined implementation as “applying the policy as planned, adequately enforcing it, and ensuring ongoing and consistent compliance with the core components of the policy.” Harriger et al. (2014, p. 276) employed a diffusion of innovations framework to define implementation as the “events, actions, and decisions involved in using the innovation,” and the innovation is defined as the school wellness policy. Taken together, the definitions include a description of some written statements
of intent leading to an act, set of acts, or practice(s); two definitions include enforcement and monitoring beyond the initial practices. Sustainable practices suggest that actions will be taken to ensure ongoing compliance with initial practices.

The current study builds upon the definitions above and defines snack policy implementation as “a process involving the translation of written snack standards, including ongoing enforcement and compliance with the policy.” An emphasis on process specifies actions or practices that may or may not lead to intended outcomes of the policy, and thus are treated as separate from outcomes. Translation refers to how actors turn the intentions of the policy into actions (Fitz, 1994). This inclusion of the actor’s interpretations aligns well with the conceptual framework, which focuses heavily on local actor involvement (discussed further in the next section). “Ongoing enforcement and consistent compliance” are included to capture recordkeeping and monitoring activities outlined by the Smart Snacks rule. This definition acknowledges that depending on the provision, some practices may be one-time, while others require efforts to ensure continued enforcement and sustainability. Lastly, as noted in the previous chapter, this study will refer to competitive food and beverage policy as snack policy, to align with the more common term in the Smart Snacks in School rule.

B. **Overarching Framework**

Figure 1 provides a landscape of the broader context for snack policy implementation. The phenomenon is conceptualized to occur within the relationship between the snack policy (as one component of the local wellness policy) and various district/school-level practices. In addition, the phenomenon occurs within various federal, state, and local contexts and characteristics. As the figure illustrates, district and school characteristics may also exert influence on snack policies, implementation processes, and the types of district and school-level school snack practices. However, these relationships are outside the scope of this current study.
Additional factors included in Figure 1 are based upon the available literature on wellness and snack policies, as well as feedback from expert review. During the study design phase, more than ten informal telephone interviews with experts from academia, government (USDA Food and Nutrition Service [FNS]), and Action for Healthy Kids (AFHK) were conducted for this feedback. Within this overarching framework, the phenomenon of interest in this study lies in the bolded box, implementation of snack policies. The next section describes the conceptual framework employed to study the specific phenomenon of interest and its constructs.

Figure 1. Overarching framework for snack policy implementation.
C. **Contextual Interaction Theory**

Conceptual frameworks act as blueprints for a study and are a critical component of case study research (Yin, 2009). This study employed a conceptual framework adapted from CIT (Bressers, 2004), which was developed in response to a call for implementation theories to go beyond top-down and/or bottom-up conceptualizations (O’Toole, 2004). The framework understands policy implementation as a social interaction process with a focus on the local actors’ characteristics and their interactions (Bressers, 2004; Bressers, 2009). The main constructs are intentionally parsimonious and included after an extensive literature review (O’Toole, 2004). The theory has been used to examine various areas of study, including water management policies (Bressers, 2007), international health policy (Spratt, 2009), anti-domestic violence policies (Javakhishvili & Jibladze, 2013), and alternative energy policies (Mohlakoana, 2014). According to Bressers, this is the first time it will be applied to school nutrition policies (H. Bressers, personal communication, April 2, 2013 and October 8, 2014).

Several assumptions are tied to this framework: (1) policy processes are local actor-interaction processes, and as such, the ways in which local and broader contextual factors impact the local actor-interactions is key; (2) actors and interactions can be influenced by the dynamic process of implementation and experiences within it; and, (3) there is a circle of political, sociocultural, economic, technologic, and problem contexts that exert influence on the local actor implementation process (Bressers, 2007). The focus on the characteristics of the local actors and their interaction processes aligns with the nature of snack policies, which have the potential to impact school professionals across the entire school campus. Thus, this framework was a great fit for the phenomenon of interest.

Bressers (2009) described two main actor groups of importance: implementing actor (i.e., typically the government) and target actor (i.e., who the policy attempts to impact). However, other researchers have noted that the implementing actor is not necessarily restricted to
government bodies (Owens, 2008). Mohlakoana (2014) added a third actor—linking actor—who communicates from the implementing to the target actor to facilitate implementation. Mohlakoana’s addition emerged from a study of alternative energy policies, in which the municipal government official was the implementing actor, who needed a linking actor to communicate with village members. Most other studies focused on the two key groups: implementing and target actors with limited expansion of role definition.

According to CIT, the key constructs for each actor group influence the implementation process: motivation, information, and power. In addition, the framework posits that dynamic interactions occur between actors to foster or inhibit implementation processes (Bressers, 2007). Identification of these constructs often reveals facilitators and barriers to implementation (Bressers, 2004). This section merges the original CIT definition of each construct with its applicability to snack policy implementation actors.

1. **Motivations**

What motivates an actor to engage with the policy implementation process? Bressers (2009) described motivation as derived from internal and external sources. Depending on their personal perceptions of the problem, actors may undertake different approaches to implementation (Bressers, 2007). For example, actors may perceive a degree of severity of the problem (in this case, childhood obesity), and will engage (or not) in information-seeking activities or interactional activities, as a result of motivation to act. In the context of this study, this construct may include the actors’ perceived importance of the problem of obesity and schools as a site of intervention, perceived levels of support for changes mandated by the policy, as well as how the mandate aligns with the actor’s personal values toward health. In addition, actors may be motivated to act due to external pressures, such as their perceived professional duties to abide by a policy. It is most likely that actors are motivated by a combination of both internal and external factors; these influences are largely understudied in snack policy implementation.
2. **Information**

In order for actors to implement a policy, they need to have sufficient information about the problem, how the policy addresses the problem, and how to take action. Actors’ cognitions are affected by learning new knowledge and applying their frame of reference to that knowledge, thereby interpreting that information (Bressers, 2007). All of these activities lead actors to develop a personal and collective knowledge about the problem. Further, actors need a sufficient level of technical knowledge in order to carry out the practices required for implementation. For example, beverage guidelines cite specific items (e.g., 1% milk), while food guidelines require knowledge about nutrients and calorie calculations (e.g., 35% of calories from fats). The latter requires one to calculate fat grams to calories and then divide by total calories; such knowledge varies based on the level of expertise involved. The reality of this challenge is reflected in differential compliance to food and beverage items in a study conducted in California (Samuels et al., 2009); it is also reflected in the closer alignment of state beverage laws to the USDA standards compared to state food laws (Chriqui et al., 2014). For the current study, the ways that TA influences levels of knowledge and implementation are also included for consideration within this construct.

3. **Power**

Power is defined as both capacity and control (Bressers, 2007). Capacity includes resources (e.g., time, personnel, and finances) that can facilitate or inhibit the process of implementation. Control refers to an actor’s power—hard or soft—within a given organization to exert influence toward implementation activities. Formal or hard power is derived by officially designated authority roles within the school district, such as administrative positions. This construct is important particularly in school districts that are inherently hierarchical. Informal or soft power is held by those who have the ability to influence others either through expertise, coalitions, or popular character traits. Bressers & Owen (in press) contend that it is critical to
understand how actors perceive their and others’ power because the perception of power will have the most impact on their actions. Table I lists the key constructs and their definitions.

### TABLE I
KEY CONSTRUCTS AND OPERATIONAL DEFINITIONS

<table>
<thead>
<tr>
<th>Construct</th>
<th>Operational Definition</th>
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| Motivations | The rationale for an actor’s engagement with the snack policy implementation process  
- Personal values and beliefs (related to nutrition, health, wellness, protecting adolescent’s health)  
- External pressures (related to professional duties, following the law) |
| Information | Level of technical knowledge related to snack policy implementation |
| Power | The levels of capacity and control held by an actor; this is generally a result of attribution from others  
- Capacity: time, finances, personnel, access to needed resources  
- Control: ability to influence other actors  
  - Hard power: Derived from authority positions  
  - Soft power: Derived indirectly via influence |

4. **Interactions**

Interactions between actors are particularly salient to snack policy implementation due to the range of actors across school departments that may be involved. For example, actors from FNS, administration, nursing, health services, and booster or fundraising club members may all be impacted by the snack policy. Interactions between actors were parsimoniously grouped by Bressers (2009) as either cooperation or opposition. Cooperation and opposition describe the facilitating and inhibitory factors that actors can play during the implementation process, thereby leading to (in)action. Thus, as the conceptual definition of snack policy implementation suggests, there are forces that lead to the action steps of the actual translation of standards into practice. In
addition, communication between actors and target groups is a key construct that can impact the levels of cooperation or opposition experienced. An example of opposition offered by Owens (2008) is if the target group ceased communication as they began to question the potential effectiveness of the policy. For this study, communication was broadly conceptualized into internal (e.g., to other school professionals and students) and external (e.g., to parents, community members) communications.

D. **Review of Related Literature**

Overall, the body of literature on snack policy implementation suffers from a dearth of conceptual frameworks and construct definitions (Harriger et al., 2014). Further, the majority of literature examines implementation from the perspective of linking policy to school-level practices or student outcomes, rather than on process-related factors that impact implementation directly. One consequence of this limited theory development is the challenge of aggregating across studies and building a body of literature to measure the relationships of interest (as outlined in Figure 1). Only one study focused on snack policy implementation in the way it is conceptualized in this study (Basser et al., 2013); Roberts et al. (2009) examined reactions to snack policy implementation, which is similar to the motivations construct in this study. Due to the limited number of snack policy studies that look explicitly at the factors influencing implementation, wellness policies were included in this review despite the potential for snack policy implementation to have unique factors in operation.

As noted, aggregation of findings across the literature was challenging for several reasons. First, most studies do not define how the phenomenon of interest is conceptualized; some studies combine factors that inhibited or facilitated both policy development and implementation, while others simply state “implementation” with no definition of what components of the process were included. Harriger et al. (2014) categorized studies based on a diffusion of
innovations models, and groups the literature across the spectrum of phases (e.g., adoption, implementation). Second, many studies are limited to specific populations or characteristics, such as elementary schools, rural areas, and the experiences of specific states. While the literature is still unclear as to how these characteristics impact snack policy implementation directly, it is possible that different factors may be at play. For example, district policies applicable at the high school level were more stringent than those applicable at the elementary school level (Chriqui et al., 2013); this trend is also consistent for school snack practices (Johnson et al., 2014). Thus, it is likely that examinations of middle/high schools would elicit different findings in terms of implementation factors.

Third, studies were heterogeneous with respect to the types of school professionals interviewed or surveyed. Studies typically focused on surveys or interviews with principals and/or FSDs (Bassler et al., 2013; Belansky et al., 2010; Molaison et al., 2011; Schwartz et al., 2012). One unique study included focus groups with students (Sanchez et al., 2014). Barnes et al. (2011) included community representatives; Brown et al. (2004) focused on school board members, state, and nutrition education leaders and other administration. Agron et al. (2010) focused on school board members, state public health nutrition directors, and school wellness advocates. The latter two studies highlighted discrepancies between respondents with respect to perspectives about their capacity to implement policies and the potential impact of the policy (Agron et al., 2010; Brown et al., 2004). McDonnell et al. (2006) similarly found that FSDs and principals differ in their reporting: principals were significantly more likely to overreport policy existence and implementation. These studies highlighted the importance of studying the range of actors involved in policy implementation and the potential implications of aggregating findings from heterogeneous respondent types.
Lastly, since most studies did not provide construct or conceptual definitions, findings from the literature are organized in this review according to the conceptual framework (CIT constructs) employed in this study. The organization is based on my assumptions about how the findings fit into the constructs: power, information, motivations, and interactions. The next section explores the current understanding in the broader wellness policy literature (and two snack policy implementation studies) based on the research question of interest: What are the critical factors for snack and wellness policy implementation?

Overall, the literature reveals that successful policy implementation is effected by a sum total of a mix of factors; most studies quantitatively list the prevalence of each factor as independent entities. Thus, while the studies documented which factors were perceived to be stronger than others, the literature remains unclear if there is an optimal mix of factors or if there are key interactions to consider. For example, Wood et al. (2010) conducted a comprehensive examination of local wellness policy development and implementation and listed 19 factors that influenced the process; however, aside from quantitative measurements of the strength of the factor, it is challenging to know which of the 19 are critical, if any interact, and how context may shape their strength or relevance. In this way, few studies described the contexts that these factors are operating within and whether these contexts impacted the factors in operation (Sanchez et al., 2014). While some studies implicitly examined relationships between constructs (e.g., how actors’ power affects information), few studies took a broad overview on all the factors working in combination. Factors are only included in this review if they were impacting snack or wellness policy implementation broadly (but not if the focus was explicitly on a specific provision, such as nutrition education or physical activity).
1. **Contextual Factors**

State and federal policies were identified as an important factor that was a catalyst for snack policy (Bassler et al., 2013) and wellness policy implementation (Longley & Sneed, 2009; Wood et al., 2010). In addition, competing educational policies were described as a strong barrier (Agron et al., 2010; Longley & Sneed, 2009; Molaison et al., 2008; Sanchez et al., 2014). A study by Budd et al. (2012) also listed limited time as a barrier.

2. **Power**

As discussed, power in the form of control is gained by virtue of authority roles (hard power) or influential character (soft power). Since schools within school districts are a hierarchical entity, the literature strongly established the importance of gaining the support of an authority figure with hard power. Typically this was through the importance of school administrator and leadership support (Bassler et al., 2013; Budd et al., 2012; Longley & Sneed, 2012; Molaison et al., 2008; Sanchez et al., 2014; Stinson et al., 2009; Wood et al., 2010). Longley and Sneed (2012) also expanded on this to include a related barrier—“lack of connection to the power structure in the district”—indicating this may be a precursor to obtaining authority support.

In addition, soft power is another type of control that was implicitly discussed in snack and wellness policy literature as operating through the wellness champion (Sanchez et al., 2014; Wood et al., 2010). Wellness champions were described by Wood et al. (2010) as actors who “drive implementation at the district and school levels” (p. 96). Sanchez et al. (2014, p. 3) defined wellness champions as those “who were explicitly committed to improving opportunities for physical activity and/or the availability of nutritional food choices to students.” By these definitions, these actors may be involved with snack policy implementation, or may focus more
broadly on wellness policy activities. The importance of these actors is highlighted by Wood et al. (2010) who reported that in the cases where a wellness champion was identified and then left the district, the implementation efforts subsequently ceased. On the other hand, Schwartz et al. (2012) also suggested in their reporting that principals felt a lack of a “key point person” was a barrier for implementation.

Lastly, another component of power is capacity; this factor was mostly reported in the literature to the extent that limited capacity was a main barrier to implementation. Respondents in a study by Agron et al. (2010) rated inadequate funding as the number one barrier to wellness policy implementation and monitoring; closely related was lack of staffing and facilities. Relatedly, Schwartz et al. (2012) reported that principals noted lack of staffing and lack of resources as barriers to implementation. Limited financial resources and threat of loss of resources were also identified by several other studies (Budd et al., 2012; Belansky et al., 2010; Molaison et al., 2008; Sanchez et al., 2014; Stinson et al., 2009; Wood et al., 2010). Sanchez et al. (2014) reported their findings separately for physical activity and nutrition provisions; the researchers noted that adequate financial resources were particularly important to implement physical activity programs. Belansky et al. (2010) noted that lack of financial resources was reported as a barrier to improving selection of healthy foods in the cafeteria.

3. Information

The literature indicated that adequate technical knowledge is critical to effective implementation (Budd et al., 2012; Molaison et al., 2008). Along the same line, studies reported the impacts of inadequate information: a limited understanding of the wellness policy by parents (Brown et al., 2004; Sanchez et al., 2014) and staff that acted as barriers and possibly led to parents bringing junk foods from home (Sanchez et al., 2014). Further, Sanchez et al. (2014) reported that most administrators were uninformed about the wellness policy and who was
accountable for implementation and enforcement. Their recommendation was to make the wellness policy a working document by increasing and improving communications between the School Health Advisory Group and the school community.

Several studies reported on TA needs, as well as the types of TA provided that were considered to facilitate the implementation process. Agron et al. (2010) reported that several training needs for wellness policy implementation were considered critical: (1) alternative revenue options to unhealthy snack foods; (2) mobilizing parental support; (3) staff development; and (4) increasing awareness about the link between nutrition and student achievement. The researchers found that needs for TA differed according to the respondent types, but all respondents felt that model nutrition standards would be a useful tool. Longley and Sneed (2009) reported that state wellness policy templates and training on how to write a wellness policy were important TA activities (although these examples of TA are applicable to development of the wellness policy and not implementation). Budd et al. (2012) reported that lack of training was a barrier to wellness policy implementation. Lastly, Wood et al. (2010) also reported on the importance of TA for monitoring and reporting activities for local wellness policy implementation.

Three studies examined the relationship between reporting on knowledge of the wellness policy and reporting about implementation. Ohri-Vachaspati et al. (2012) suggested that effective communications to administrators are key; administrators were nearly twice as likely to report implementation of a wellness policy if they also reported having a wellness policy in place. One study examined the link between awareness of food policy (described as Gold Medal Schools policy in Utah) and self-reporting of implementation (Lanier et al., 2012). Teachers were more likely to report implementation of the policy if they were aware of the policy and if they thought that students were overweight (Lanier et al., 2012). Lastly, Namasivayam et al. (2007) reported
that FSDs reported higher familiarity with the Child Nutrition Act if they also had leadership support for the policy.

4. **Interactions**

Interaction factors such as effective communications were identified in the literature as a critical component of wellness policy implementation (Basser et al., 2013; Roberts et al., 2009; Wood et al., 2010). Examples of such factors included: community engagement and broad communications strategies (Bassler et al., 2013); gaining support of non-staff actors, such as students (Agron et al., 2010; Brown et al., 2004; Budd et al., 2012); staff cooperation (Budd et al., 2012); teacher support (Longley & Sneed, 2009; McDonnell & Probart, 2008; Molaison et al., 2008); and parental support (Agron et al., 2010; Longley & Sneed, 2009; Molaison et al., 2008; Sanchez et al., 2014; Stinson et al., 2009). Related to these interaction strategies, Molaison et al. (2008) reported that parental education materials were a key resource that helped with implementation, and Longley and Sneed (2009) reported that public meetings about the wellness policy were an important strategy to enhance communications. On the other hand, Schwartz et al. (2012) stated that lack of coordination was predictive of poor implementation.

In a unique qualitative study, Probart et al. (2006) highlighted how FSDs perceived the influences of other actors with respect to the sale of à la carte items. Specifically, the FSDs reported that administrators were mainly concerned with finances, while parents were concerned with student complaints; lastly, student satisfaction was a key concern for the FSD. While this study does not further highlight the key interactions between these groups, it suggests that FSDs' perceptions of other actor groups influence their decision-making with this snack venue.
5. **Motivations**

Several studies examined school professionals’ perspectives toward school wellness policies, but the majority of studies do not explore how these motivations or perspectives impacted the policy implementation process. Wood et al. (2010, p. 20) explicitly stated the “personal commitment and personal perspectives” of administrators and staff played a critical role in the development, implementation, and sustainability of the local wellness policy. Molaison et al. (2008), Agron et al. (2010), and Roberts et al. (2009) found that school professionals reported overall positive attitudes toward the local wellness policy. Overall, perceived benefits of the policy were listed as: promoting healthier eating habits and improved academic success (Molaison et al., 2008; Roberts et al., 2009), and potential to impact childhood obesity (Agron et al., 2010). Brown et al. (2004) reported that amidst school board members and state education leaders surveyed about nutrition policies, 66% felt policies could impact childhood obesity and 88% supported minimum nutrition standards. The majority, however, preferred restrictions on availability over blanket-bans on items. Of those reporting less positive perceptions of the policy, one reported reason was that the effect would be minimal due to the non-stringent time-of-day restrictions (Robert et al., 2009). Lastly, Longley and Sneed (2009) and Budd et al. (2012) both reported that school professionals did not perceive the wellness policy as a priority item and did not see the potential benefits to implementing the policy.

With respect to generalized perspectives about the school environment on obesity and the potential for policies to impact food availability, Nollen et al. (2007) reported that high school principals and FSDs reported obesity was not a problem at their particular school and schools were unfairly targeted. Further, respondents reported that interventions should start at an earlier age. Not surprisingly, principals reported that academics were a higher priority compared to food reform initiatives. Along similar lines, Odum et al. (2013) found that elementary school teachers,
administrators, and support staff reported obesity was a concern; however, the home environment, inactivity, and child control of dietary practices were larger contributors. In addition, Roberts et al. (2009) studied the perspectives of FSDs and principals; the authors reported that the respondents felt government should not mandate food policies on citizens and that the parents should be held responsible for children’s diets. Further, the respondents indicated that parents were primarily responsible for children’s eating behaviors and thus, schools were not responsible.

In conclusion, while key factors for implementation, such as administrator support and adequate TA are identified in the literature, it is unclear how the factors operate together and in which contexts. Based upon the lists of factors identified in the literature, there are clear indications that most fit within the constructs identified in this study: motivations, power, information, and interactions. Further, the literature suggests there is a broad range of perspectives related to wellness policies and childhood obesity in general; however, it is unclear how these views impact the implementation process. There is a large gap in the literature concerning which optimal mix of factors (and in which contexts) lead to successful policy implementation. Most importantly, although it is likely that wellness policy implementation factors will overlap with snack policy implementation, the literature is unclear if there are unique factors in the latter phenomenon. Since snack policy implementation is most controversial and, as a result, has the potential to face more resistance, it is critical to address this gap in the literature.
III. METHODS

A. **Background**

This study aims to create an adapted conceptual framework that explores snack policy implementation. The overarching research question is: Among high schools with strong snack practices, what are the critical implementation factors? A multiple case study approach, including in-depth interviews and an internal document analysis, allowed for the collection of rich, contextual data that offer insight to the process of school snack policy implementation. This chapter outlines the methods employed to answer the research question, including steps taken to enhance the trustworthiness of the findings.

B. **Multiple Case Study Approach**

This study used a multiple case study approach to examine how policies are implemented in natural, contemporary settings with no control over the course of events. Yin (2009, p. 18) defined case studies as inquiry that “investigates a contemporary phenomenon in depth within its real-life context.” The inquiry is characterized as one that involves more variables than data points and that requires the use of different forms of data that can be triangulated. This process often relies on a deductive, theoretical process to guide data collection and analysis. Such an approach is particularly useful in examining school snack policies, as the specific intervention (policy changes to improve school food environments) cannot be randomized due to the federal mandate. Thus, examining how the policies are implemented in order to impact real-world practices related to school food environments offers valuable insight and acts as “adjuncts to experiments, rather than as alternatives to them” (Yin, 2009, p. 16). Further, an embedded case study design captured the interconnected nature of school-level implementation processes.
within their contexts of districts within states. The methodology was well-aligned to capture the multilayered influences and nuances of school-level snack policy implementation.

1. **Unit of analysis**

   The unit of analysis, or definition of the case, is a key step in case study research since it creates boundaries around the functioning and processes of study. In other words, the unit of analysis functions as the host that brings together the constructs and relationships within the phenomenon of interest (Yin, 2009). For the current study, the primary unit of analysis is the high school, which is understood as being embedded within the context of the school district. As a result, key informants from both school and district levels were interviewed to gain an understanding of the phenomenon as it operates at both levels. One reason for this sampling decision was that FSDs—typically district-level respondents—are well-known to be critical to à la carte and potentially other venues for snack policy implementation (Brown et al., 2004; Stinson et al., 2009; Roberts et al., 2009); thus, it was important to include this respondent group as part of the case. The implications of this are discussed in detail later in the chapter.

2. **Sampling strategy**

   The main goal of sampling is to elicit the most information-rich cases that inform the phenomenon of interest (Patton, 2002; Coyne, 1997). In qualitative research, there is no formula for sampling estimation; in general, there is an inverse relationship between the sample size and the quality and richness of data in each case (Patton, 2002). Rigorous sampling can be assessed by how well the strategy supports the study’s aims and therefore must be judged in the context of the study. Since the aim of the study was to understand the phenomenon of snack policy implementation, the HealthierUS School Challenge: Smarter Lunchrooms (referred to as HUSSC: SL hereafter) database was chosen as a sampling frame because high schools in this sample have demonstrated achievement of the fairly stringent HUSSC: SL standards. Using this database, criterion sampling was employed to identify the cases; the last database was obtained
on February 16, 2014. The HUSSC: SL database and criteria for selection are described next.

The HUSSC: SL was developed in 2004 (originally titled HUSSC) by the USDA FNS (USDA, 2014). Although the title was changed to “Smarter Lunchrooms,” the initiative outlines criteria across local wellness policy provisions, including nutrition and physical activity. Schools can voluntarily apply for certification that ranges from bronze, silver, gold, and then gold award of distinction based on varying levels of practice (USDA, 2014). After First Lady Michelle Obama adopted childhood obesity prevention as her legacy (Let’s Move! campaign) in 2010, the HUSSC: SL award was expanded to middle and high schools and a monetary incentive was added (S. Hamden, personal communication, May 29, 2014). To achieve HUSSC: SL certification, schools complete a lengthy self-assessment of their school’s policy and practices. Often these applications are reviewed by district and/or state agencies before submission to the federal level (this process varies by state) (S. Hamden, personal communication, May 29, 2014). For the snack criteria, schools must comply with Smart Snack as well as additional criteria, such as document “training on Smart Snack criteria annually and all individuals who are involved in the sale of foods to students on the school campus during the school day” for the bronze/silver awards (USDA, 2014). The gold and gold award of distinction builds upon this requirement and also requires fundraisers to meet Smart Snack standards, even if the state allows exemptions (USDA, 2014). Applicants submit their district wellness policies (including snack standards), but these policies are not scored toward the award; instead, they are checked for consistency/conflict (e.g., do not have conflicting language allowing food rewards) and general completion (e.g., all components of wellness policy addressed) (S. Hamden, personal communication, May 29, 2014).

It is worthwhile to note that the Alliance for a Healthier Generation (AHG) also has a certification called Healthy Schools Program (HSP). The AHG recently partnered with the CDC to include the Healthy School Index, a self-assessment tool that allows schools to examine their
strengths/weaknesses of policies and programs, create an action plan, and build a team (Alliance for a Healthier Generation, 2015). Beginning September 2014, the USDA and AHG partnered to create a streamlined certification process for schools to achieve HUSSC: SL status. For example, new this year, an HSP bronze school can automatically be awarded a HUSSC: SL bronze award.

There were several advantages to sampling from the HUSSC: SL database. First, it allowed for identification of high schools that are already recognized for exemplary wellness and school snack practices by the USDA. While these are self-reported practices, often the state Child Nutrition entity reviews the applications before submitting to the federal USDA office, resulting in examination by two government entities. Second, the HUSSC: SL award recognizes individual schools rather than school districts. This created the opportunity to study schools that are the sole recipient of the award within their districts. In some cases, district-level respondents provided insight into what allowed the high school to be exemplary while others in the district were not. This allowed for a nuanced understanding of successful implementation. Lastly, both HUSSC: SL criteria and the Smart Snacks in Schools regulations were released by the USDA and thus are very similar. Studying schools that have already met the HUSSC: SL criteria provides information that is applicable to schools in the rest of the nation that are now mandated to meet Smart Snacks in Schools. The limitations of using the HUSSC: SL database are discussed in the Strengths and Limitations section.

Criterion sampling (Patton, 2002) was employed to identify schools with a range of characteristics that are hypothesized to impact the implementation process. Initially, I focused on gold- and gold award of distinction-award high schools (n=16; October 2013) because these are the highest levels of certification. However, in late January 2014 I presented my proposal to the USDA FNS office in Washington, DC and they suggested opening up the sampling frame to all award levels (n=203) because the snack criteria differed minimally across the levels. Although an
initial group of gold and gold award of distinction high schools had been contacted between October and late January, as a result of the feedback, the sampling frame was opened up to a larger sample from January through October 2014. This revision allowed for high schools with a wider range of characteristics to be selected.

Criterion sampling (Patton, 2002) was first used to identify region and state to obtain a relative spread of schools across the nation. In addition, state law strength scores for snack foods were considered using the Bridging the Gap state law (school year 2012–2013) database as a reference (Bridging the Gap, 2014). State law strength is calculated by a rigorous coding process originally published by Schwartz et al. (2009) and adapted by researchers at Bridging the Gap (2010). The score measures the proportion of snack food items—specifically those in vending machines, à la carte, and school stores—that were required by law. A requirement is considered and coded to include policy language that used words such as “shall, must, required,” as compared to weaker language such as “encourage, should, may” (Bridging the Gap, 2014). A score from 0 to 100 is calculated, with 100 being the strongest possible policy (Bridging the Gap, 2014). Further, the state law score was calculated for the high school level only. As potential states were identified, state childhood obesity percentages were also considered using National Survey of Children’s Health 2011–2012 (National Survey of Children’s Health, 2012).²

Once states were identified, school characteristics were considered using the National Center for Education Statistics Common Core Data (school year 2011–2012), which identifies school characteristics, including locale (large/midsize city, suburban, and rural area/small town)³; majority race (American Indian/Alaskan, white, black, Hispanic, Asian/Pacific Islander, two or

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² This survey is funded by the Maternal and Child Health Bureau (MCHB) and involves interviews with 91,642 parents from 50 states and the District of Columbia (National Survey of Children’s Health, 2012). Interviews were conducted with respondents from households with children age 0–17; height and weight were obtained by self-report from parents (National Survey of Children’s Health, 2012).

³ The NCES locale code system was revised in 2005–2006 to an “urban centric” one which defines locale by proximity to an urbanized area (“a densely settled core with densely settled surrounding areas”). This was to support changes to the Census Bureau. Definitions for each case are provided in the case summaries and retrieved from CCD (2014).
more races, enrollment; school size; and percentage of students on free and reduced price eligible (FRP) (NCES, 2013). The goal was to identify schools with a range of characteristics using all of the above criteria, which were selected due to known disparities in the literature related to obesity prevalence (Trust for America’s Health, 2013) and district nutrition policies (Taber et al., 2011). However, as the literature is not entirely clear on the influence of all characteristics, decisions were made with continuous feedback from expert committee members. The overall goal was to obtain a range of characteristics across the high schools selected.

3. **Recruitment**

Recruitment took place from November 2013 through October 2014 (see Appendix A). The study aimed to capture the voices of FSDs, principals, and any other actors involved in the implementation process. For each school, I first obtained email or telephone permission from the school district superintendent to contact professionals at the district and individual school level. At this stage, two schools required additional human subjects/research review board applications to move forward; this was completed and approved. Next, the FSD was contacted by email and/or telephone with a description/rationale for the research study, and request for an interview. Following the FSD interview, I reached out to the principal and other key informants identified by either the FSD or principal as being critical to the snack policy implementation process. A minimum goal of three interviews was conducted for each high school. Other key informants included: cafeteria managers, booster club members, athletic directors, health education (HE) teachers, TA providers, fundraising club leaders, nurses, and district-level administrators. Booster clubs are organizations formed at secondary schools typically for the purpose of supporting school programs via fundraising.

As noted, informants from both school-level and district-level were included due to the criterion sampling strategy, which calls for collection of data from those directly involved with the phenomenon of interest (snack policy implementation). Thus, while the unit of analysis was
identified at the school level, thorough sampling for the phenomenon of interest required reaching out beyond those boundaries for a more contextualized understanding of processes at the school level.

The current study was approved under Exemption Status by the University of Illinois (UIC) IRB (#2013-1007). In addition, two school districts (Illinois and Texas) required additional review by a school district-level board; the study was also granted approval from these entities. The IRB letter of exemption can be found in Appendix B.

4. Data collection

In qualitative research, data collection and analysis are conducted simultaneously to allow each activity to iteratively inform the other (Miles, Huberman, & Saldaña, 2014; Patton, 2002); however, in this section they will be described in sequence. There were two sources of data collected: (1) semi-structured key informant interviews (primary), and (2) internal documents.

a. Key informant Interviews

Key informants provide rich insight into the phenomenon of interest and are a critical source of data for case studies (Yin, 2009; Patton, 2002). However, Yin (2009) cautioned that interviews may be subject to response bias, inaccurate recall, and bias from poorly designed questions. The main guide for this study (Appendix C) has four broad sections that correspond with the conceptual framework. This guide was slightly modified for the type of informant and pilot-tested with an FSD from a local school district, as well as reviewed by three officials at the FNS of the USDA with expertise in school snack policy. In addition to reviewing for content, the questions were iteratively revised to ensure the guide was minimally burdensome, used effective probes, and was restrained from judgment (Rubin & Rubin, 2012; Yin, 2009). Piloting the guide and making continuous refinements were crucial steps in ensuring the quality
of data collected.

Following each interview, a contact sheet summary (Miles et al., 2014) was completed to capture immediate impressions of the interview and any other noteworthy thoughts or questions. These outstanding questions were incorporated into the next interviews, thus lending to the flexible and iterative nature of qualitative methodology. Contact sheet summaries were also uploaded into software and consulted during the analysis process.

Interviews were audiotaped with respondent permission and lasted between 20 and 75 minutes. I conducted all interviews over the telephone, with the exception of the interviews in Illinois that were conducted in person. Lastly, I transcribed all interviews into Microsoft Word and uploaded them to Atlas.ti software for organization and coding.

b. **Internal documents**

Internal documents were collected to corroborate interview data. Documents provide exact references and details of an event (rather than relying on participant memory) and they have the potential to cover a broad range of data, spanning many times, events, and settings, without creating respondent burden (Yin, 2009). Types of documents varied between cases. Some examples of documents included: (1) district and school wellness on-the-books policies and regulations approved by school boards; (2) Child Nutrition websites, including Facebook pages; (3) newsletters; (4) wellness committee meeting minutes; and (5) local newspaper articles. Documents were collected from each school district unit by: (1) reviewing the school and school district’s website prior to interviews; and (2) requesting respondents to identify and share pertinent documents at the time of interview. The websites demonstrate the extent to which schools communicate wellness nutrition messaging and are engaging parents and the community in their health initiatives. Aside from Amis et al. (2012), few studies examining wellness policy implementation include such a wide range of internal documents as a source of
data. A total of 65 internal documents were uploaded in Atlas.ti for analysis (discussed further below).

5. **Methods crosswalk**

The following Methods Crosswalk (Table II) ties together all of the sections described above: it outlines how the study was guided by a conceptual framework and iteratively connected back to the research questions. This crosswalk aligns the overarching and sub-research questions, data sources, and constructs from the conceptual framework. The framework is based on the overarching question: Among high schools with strong snack practices, what are the critical implementation factors?
TABLE II
METHODS CROSSWALK

<table>
<thead>
<tr>
<th>Construct</th>
<th>Sub-Research Question</th>
<th>Data Collection Method</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>Power</td>
<td>Who are the key actors in snack policy implementation?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How have these actors worked to implement the policy?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>If there is a defined local champion and what is their role? (Snack policy champion vs wellness policy champion)</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How does actors’ hard/soft power work to facilitate implementation?</td>
<td>X</td>
</tr>
<tr>
<td>Motivation</td>
<td>What are individual actors’ values of health?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>What are actors’ perceptions of adolescent obesity?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>What are actors’ views about the role of schools in promoting students’ health?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How do actors’ motivations impact their policy implementation activities?</td>
<td>X</td>
</tr>
<tr>
<td>Information</td>
<td>What sources of TA has the school/ school district received?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>What TA is needed in order to facilitate successful implementation of Interim Rule?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>Do actors receive TA from differing sources?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>What TA is needed in order to successfully monitor, evaluate, and report on snack policy implementation?</td>
<td>X</td>
</tr>
<tr>
<td>Construct</td>
<td>Sub-Research Question</td>
<td>Data Collection Method</td>
</tr>
<tr>
<td>-------------------------</td>
<td>----------------------------------------------------------------------------------------</td>
<td>------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Interviews</td>
</tr>
<tr>
<td>Interactions</td>
<td>To what extent have actors experienced cooperation/opposition?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How did the school snack policy help to frame the processes of implementation?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How have actors communicated implementation efforts to others?</td>
<td>X</td>
</tr>
<tr>
<td>Policy Characteristics</td>
<td>Does the district snack policy and/or Smart Snacks policy reflect the actors’ values of health?</td>
<td>X</td>
</tr>
<tr>
<td></td>
<td>How do actors’ use the snack policy to facilitate implementation?</td>
<td>X</td>
</tr>
</tbody>
</table>
C. **Data Management and Analysis**

Interview transcripts, internal documents, and contact summaries were uploaded into Atlas.ti Qualitative Analysis Software (version 7) for organization and management to prepare for data analysis. Atlas.ti allows for the organization of large quantities of data, as well as for multiple sources of data to be grouped and explored by category. These features are ideal for multiple case study designs, which often require categorization by case, informant type, or other groups appropriate to the research question.

1. **Coding**

A preliminary coding guide was created that contained 46 codes grouped into seven code families that corresponded with constructs from the conceptual framework. The second coder—a doctoral student and former food service professional from Mississippi—and I first read through and coded transcripts from one case (three transcripts), deductively applied codes, and then met three times over two weeks to discuss discrepancies and revise the guide. These meetings occurred during a doctoral level Qualitative Data Analysis course in the UIC School of Public Health (January–May 2014). In addition, the instructor was a qualitative methods expert who provided feedback on the coding guide and our coding practices. Revisions to the coding guide included deleting codes, editing inclusion/exclusion criteria for code definitions, and merging or creating new codes. To facilitate this process, memos were used when we felt more explanation was warranted. In addition, memos added description or context where the code alone was not sufficient (Miles et al., 2014). Once we were satisfied with the initial set of codes, we coded one rich transcript to retest the coding guide and calculate inter-coder reliability (Miles et al., 2014), which was 83%. Overall, the final coding guide (version 7) had 46 codes (See Appendix D).

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4 Discrepancies were found in the motivations category, primarily due to these codes being more abstract in their definitions and unclear delineations between their meanings. This was corrected with the guidance of Dr. Nadine Peacock during her feedback on the coding guide.
Code families were grouped by construct (e.g., all codes pertaining to Motivations were grouped together); additional code families were created when appropriate (e.g., super code for Communication grouped internal and external communication codes) to capture sub-constructs. I completed coding for the remaining cases using the final version of the coding guide. Forty-six memos were generated throughout the remainder of coding and were reviewed throughout analysis; memo families were created to group memos by case. Primary document families were grouped by respondent type and case; this allowed for inquiries specific to each type of respondent.

2. **Thematic analysis**

The overarching analysis strategy followed “within- and cross-case synthesis,” where findings were aggregated within-case first and then across cases in a process informed by the conceptual framework (Miles et al., 2014; Yin, 2009). This analytic technique is useful to inform policy and can lead to recommendations for future policy provisions (Yin, 2009).

Within-case analysis allows the researcher to deal with copious amounts of data by creating summaries or write-ups of each case (Miles et al., 2014). The goal is to become intimately familiar with each case (Eisenhardt, 1989). Cross-case analysis is important to deepen an understanding about the phenomenon and strengthen the associated theories (Miles et al., 2014). This is a challenging process rife with “tensions between the particular and the universal” (Miles & Huberman, 1994, p. 173). In other words, the analysis must preserve the uniqueness of each case but respond to a call for generalized, cross-cutting theories (Miles et al., 2014; Yin, 2009). Examination of the data from various methods avoids simplistic conclusions as a result of poor or premature information processing (Eisenhardt, 1989; Miles et al., 2014).

In practice, the recruitment and interview timeline overlapped, leading to a concurrent within-case and cross-case analysis phase. The first three cases were analyzed fully as part of the qualitative analysis course; however, I continued to compare newly completed cases with the
original three. I followed the 2014 framework of Miles et al. to build detailed case summaries and individual conceptual frameworks. (Case summaries can be found in Appendices E through M.) Individual conceptual frameworks were constructed iteratively with the second coder’s feedback and our emerging understanding of the salient factors. As each new case summary was developed, a constant comparison analysis was employed to compare additional frameworks. To assist with this process, I explored the data using code frequency queries and co-occurrence tables by filtering for primary document family. Further, network managers were also employed when more visual representation was desired, particularly for generating adapted conceptual frameworks for each case. The second coder and I independently conducted exploratory analysis and met three times over four weeks to review our findings and discuss discrepancies and similarities between our interpretations. For the first three cases, we received feedback pertaining to coding technique, use of exploratory functions, and methods for generating themes from our Qualitative Analysis course instructor.

Cross-case analysis began as I expanded to additional cases. I took detailed analysis notes in my study journal (described next) as new insights and (in)consistencies through comparisons emerged. A constant comparison method was used and further explored in Atlas.ti to support or refute themes or relationships between constructs and relationships between constructs that arose. To display these visually, matrices for data visualization were employed to compare across cases (Miles et al., 2014). Matrices were created across constructs of interest and allowed for direct comparison. Further, code-primary document (p-doc) tables were generated to view coding across cases to support/refute emerging patterns across the matrices. Next, code frequency queries and co-occurrence tables were also generated. All of these steps describe an iterative process of returning to the data and creating new queries for co-occurrence or simply generating quotation lists by code and rereading through quotations, then returning back to the initial conceptual framework and findings.

Throughout the analysis process, preliminary findings were shared on an ongoing basis
with my second coder, my committee members, and officials at the USDA FNS with expertise in school snack policy. In this way, the analysis included exposing emergent findings to methodological and content experts, as well as school and public health practitioners, who all provided real-time feedback and advanced the analysis further.

D. **Methods to Enhance Rigor**

Measures to enhance rigor in qualitative research have been hotly debated in this relatively new field (Beck, 1994; Morse et al., 2002; Sparkes, 2001). Researchers argue that terms such as validity and reliability are rooted in positivist sciences, which are incompatible with the epistemological and ontological foundations of qualitative approaches (Tobin & Begley, 2004). While Yin (2009) uses measures of validity and reliability, other qualitative researchers have developed measures of “trustworthiness” (Lincoln & Guba, 1985) and “goodness” (Denzin & Lincoln, 2000) that have stimulated ongoing debate. Regardless of the approach, most researchers agree that measures to establish rigor are best built into the research design from the beginning in a constructive manner, rather than in a post-hoc manner (Morse et al., 2002; Yin, 2009).

For the current study, trustworthiness, which is described by Lincoln and Guba (1985, p. 290) as: “how can an inquirer persuade his or her audience (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?” This measure requires demonstration of credibility, transferability, dependability, and confirmability via a range of activities. The following section is organized by the types of activities outlined by the authors, which were included in the research design and conducted throughout the study to enhance study rigor.

1. **Peer debriefing**

Peer debriefing involves “exposing oneself to a disinterested peer . . . for the purpose of exploring aspects of the inquiry that might otherwise remain only implicit within the
inquirer’s mind” (Lincoln & Guba, 1985, p. 308). This is conducted to enhance credibility of the findings and challenge the researcher’s predispositions toward the data. For the current study, as described, debriefing occurred continuously with my second coder, faculty committee members, and staff from the Bridging the Gap program, and continued throughout the data collection and analysis phases. In addition, both study design and emergent findings went through consultation and feedback with four experts from the USDA FNS office on an ongoing basis. For example, I shared the preliminary conceptual framework with an FNS official who provides TA to school districts. While I was still unsure about my conceptualization of power, she confirmed (excitedly) that she constantly deals with complaints from FSDs about lack of power. This debriefing confirmed my preliminary analysis that power was a key construct in this phenomenon and led me down this road further. This was an iterative process that occurred through design, analysis, and writing phases.

2. **Negative case analysis**

Negative case analysis is the process of returning to the hypothesis until it “accounts for all known cases without exception” (Lincoln & Guba, 1985, p. 309). Part of this step involves closer examination of outliers and asking if the analysis involved a systematic search for alternative hypotheses, rival explanations, and divergent patterns (Patton, 2002; Yin, 2009). The literature does not offer concrete guidelines for how many cases and how long the researcher should conduct this search during analysis (Miles et al., 2014). Lincoln and Guba (1985) contended that it is unlikely (and too rigid) to expect zero exceptions to the hypothesis. The authors stated that even 60% of cases fitting within the hypothesis may indicate substantial acceptability. This study looked for negative cases throughout the analysis phase by comparatively testing the implementation framework against each case in the sample and against each other. For example, the Illinois case was an outlier in the structure of the school district and its unique TA entity. This allowed for deeper analysis to examine whether the Illinois framework—while the structure was different—had similar factors at play in the phenomenon.
The staggered nature of data collection allowed for this gradual comparison. In addition, write-up and analysis of case summaries allowed for an easy side-by-side comparison of outliers and common themes.

3. **Reflexive journal and audit trail**

Reflexivity prompts the researcher to exercise self-awareness and cultural consciousness in considering his/her cultural, political, social, linguistic, and ideological position and how these are impacting the study (Patton, 2002). Throughout the current study, I kept an ongoing reflexive journal, which serves as a critical component of the audit trail. The journal documents: (1) daily logistics of the study; (2) reflections about incoming data and research processes; and (3) decisions, rationales, and analysis processes (Lincoln & Guba, 1985). The journal was reviewed consistently during the data analysis phase to trace the history of analytical decisions and any potential influences that the reflexivity process identifies.

In addition to the journal, other products were created as ongoing audit trails during the study. These audit trails are meant to allow outside researchers to examine the processes of the study for evaluation of dependability and confirmability of the findings (Lincoln & Guba, 1985). The following documents were generated, several of which were discussed with faculty committee members throughout the study: (1) data reduction and analysis products (write-ups of analysis notes and summaries); (2) process notes (methodological decision-making process); (3) materials relating to intentions (reflexive notes and motivations); and (4) instrument development information (pilot forms, preliminary schedules).

4. **Triangulation**

A major strength of the case study approach is the emphasis on triangulation of data with the goal of identifying “converging lines of inquiry” (Yin, 2009, p. 115). According to Patton (2002), there are four types of triangulation: (1) methods triangulation, where different methodologies are used; (2) source triangulation, where different sources are checked; (3) analyst triangulation, where more than one analyst reviews the findings; and (4) theory
triangulation, where multiple theories are used to interpret findings. The purpose of triangulation is not to find the exact same findings every time; rather, it is to guide the researcher to find (in)consistencies, which may point to deeper insights that have not been explored. The current study employed source triangulation and analyst triangulation. Interviews and internal documents were used to corroborate findings. For example, the analysis involved comparing the perspectives and values as stated by respondents with what is reflected on the school and district websites and communications strategies. In addition, several actors from each district were interviewed in order to document shared and differing accounts of implementation. For example, if the principal said he was involved closely with implementation, other actors were questioned for their perspective on the principal’s involvement. Finally, as discussed, analysis was conducted by myself and a second coder and reviewed by a range of experts, including a faculty methods expert in the UIC School of Public Health, dissertation committee members, and government officials at the USDA. This allowed for others with a wide range of method and content expertise to critique my analysis and writing, leading to refinement of more rigorous findings.

E. **Sample Characteristics**

The following section describes the characteristics of the high school sample, the school professionals interviewed, and the types of internal documents collected. First, findings for this study are based on a sample of HUSSC: SL high school awardees. Table III shows the demographic characteristics of the state and district in which the high schools are situated, as well as school-specific characteristics of the final sample. As there were two Californian high schools, they are denoted as California 1 and California 2 or CA1 and CA2.
<table>
<thead>
<tr>
<th></th>
<th>State</th>
<th>Census Division*</th>
<th>State Policy Strength Score*b</th>
<th>State Childhood Obesity (%)c</th>
<th># Schools in District</th>
<th>Localed</th>
<th>Total students at high school</th>
<th>Ethnicity</th>
<th>FRP %e</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CA1</td>
<td>Pacific</td>
<td>33</td>
<td>30</td>
<td>29</td>
<td>City: Large</td>
<td>1200</td>
<td>40% Hispanic; 26% Asian</td>
<td>55%</td>
<td>Silver</td>
</tr>
<tr>
<td>2</td>
<td>CA2</td>
<td>Pacific</td>
<td>33</td>
<td>30</td>
<td>12</td>
<td>Suburb</td>
<td>2531</td>
<td>53% Hispanic</td>
<td>72%</td>
<td>Bronze</td>
</tr>
<tr>
<td>3</td>
<td>IL</td>
<td>East North Central</td>
<td>12</td>
<td>34</td>
<td>642</td>
<td>City: large</td>
<td>1042</td>
<td>43% Hispanic; 35% Black</td>
<td>89%</td>
<td>Gold</td>
</tr>
<tr>
<td>4</td>
<td>IA</td>
<td>West North Central</td>
<td>28</td>
<td>28</td>
<td>7</td>
<td>Town: Remote</td>
<td>431</td>
<td>94% White</td>
<td>18%</td>
<td>Gold</td>
</tr>
<tr>
<td>5</td>
<td>KS</td>
<td>West North Central</td>
<td>2</td>
<td>30</td>
<td>9</td>
<td>Rural: Remote</td>
<td>57</td>
<td>89% White</td>
<td>84%</td>
<td>Gold</td>
</tr>
<tr>
<td>6</td>
<td>MS</td>
<td>East South Central</td>
<td>47</td>
<td>40</td>
<td>10</td>
<td>City: small</td>
<td>895</td>
<td>94% Black</td>
<td>82%</td>
<td>Gold Award of Distinction</td>
</tr>
<tr>
<td>7</td>
<td>NY</td>
<td>Middle Atlantic</td>
<td>2</td>
<td>32</td>
<td>3</td>
<td>Town: Fringe</td>
<td>513</td>
<td>89% White</td>
<td>17%</td>
<td>Gold</td>
</tr>
<tr>
<td>8</td>
<td>TX</td>
<td>West South Central</td>
<td>34</td>
<td>37</td>
<td>65</td>
<td>Rural: Fringe</td>
<td>1890</td>
<td>99% Hispanic</td>
<td>80%</td>
<td>Bronze</td>
</tr>
<tr>
<td>9</td>
<td>VA</td>
<td>South Atlantic</td>
<td>14</td>
<td>30</td>
<td>18</td>
<td>Suburb: Small</td>
<td>1294</td>
<td>75% White</td>
<td>22%</td>
<td>Gold</td>
</tr>
</tbody>
</table>

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*a Census divisions of the United States (www2.census.gov/)
*b See methods chapter for state law strength score calculation. Scores range from 0 to 100 with 100 being the highest possible score.
*c National Survey of Children's Health (2011–2012)
*d National Center for Education Statistics (NCES) (2011–2012)
*e Free and reduced price eligibility %
Second, Table IV displays the type and number of respondents interviewed for each case. As discussed in this chapter, the FSDs, principals, and cafeteria managers were identified as the three minimum respondents per case. The FSD and principal were then asked to identify actors who were involved in the implementation process. As new respondents were interviewed, they were also asked to identify other involved actors. Unfortunately, not all contacted respondents were interviewed; “*” indicates respondents who declined participation.

**TABLE IV**
KEY INFORMANT TYPES

<table>
<thead>
<tr>
<th></th>
<th>FSD</th>
<th>Principal/Vice Principal</th>
<th>Cafeteria Manager</th>
<th>Athletics Directors; PE Teachers; Booster</th>
<th>Nurse/Health Service</th>
<th>Family Consumer Science/Health Teacher</th>
<th>TA provider</th>
<th>Finance Admin.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td>X</td>
<td>XX</td>
<td>X</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>CA2</td>
<td>X</td>
<td>X</td>
<td>*</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td>*</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>IA</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>IL</td>
<td>X</td>
<td>*</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>XX</td>
<td></td>
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<td>5</td>
</tr>
<tr>
<td>KS</td>
<td>XX</td>
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<td>*</td>
<td>X</td>
<td>XX</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>MS</td>
<td>X</td>
<td>X</td>
<td>*</td>
<td>X</td>
<td>X</td>
<td>*</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>NY</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>*</td>
<td>X</td>
<td>*</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>TX</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>VA</td>
<td>XX</td>
<td>*</td>
<td>*</td>
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<td>*</td>
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<td></td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
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<td>7</td>
<td>5</td>
<td>8</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>39</td>
</tr>
</tbody>
</table>

*Indicates the respondent declined the interview

Lastly, a range of internal documents was gathered for each case (see Appendices E–M). The following internal documents were collected and analyzed: (1) local wellness policies (on-the-books policies and regulations); (2) newsletters to parents and school community; (3) local newspaper articles; (4) school district and high school websites (with a focus on CNS pages); and (5) Facebook pages for CNS. In addition to these internal documents, documents
generated through the study were also included as supplementary pieces to analysis; these included: post-interview summary notes and ongoing analysis notes from the audit journal.

In conclusion, the multiple case study methodology was ideal to examine snack policy implementation in its natural setting. The study was designed with several checks and balances activities to enhance the rigor of findings. By combining principles of trustworthiness (Lincoln & Guba, 1985) with ongoing feedback from academic experts, government officials, and school practitioners, the activities were carefully executed and documented for accuracy. However, no research study is without flaws; the strengths and limitations of the study are described in section C. The next chapter outlines the findings that emerged from this study.
IV. FINDINGS AND IMPLICATIONS

This chapter outlines findings from the cross-case analysis to respond to the main research question: Among high schools with strong school snacks practices, what are the critical implementation factors? The findings from individual cases can be found in the Case Summaries (see Appendices E–M). As discussed in the Methods chapter, the adapted conceptual framework was developed by analyzing across these individual cases. In addition, several unexpected themes related to the actors’ motivations toward snack policies emerged out of the cross-case analysis. While motivations are one component of CIT, these themes are presented separately due to the richness of the themes. This section begins with a discussion of important contexts for which the findings are situated. Second, the adapted conceptual framework for snack policy implementation is presented and described in detail. Third, actors’ perspectives towards obesity and the snacks policy and these interwoven implications for snack policy implementation are outlined. Lastly, the strengths and limitations of the study overall are discussed.

A. Adapted Conceptual Framework for Snack Policy Implementation

The CIT recognizes a wider context of political, social, and economic factors that influence the local actor-interaction process. While these broader factors are typically not the focus of CIT frameworks in the literature, they are included in this study due to their salience in the phenomenon of snack policy implementation. First, a simplified framework is presented in Figure 2; the framework is hierarchical in nature and shows the relationship of the federal law and regulations on state and district-level policies (as indicated by unidirectional arrows). Further, five actor groups that played important roles in the implementation process are distinguished: implementing actor, authority actor, support actor, target actor, and TA actor (discussed in detail next). The bold boxes indicate critical actors (i.e., implementing actor/authority actor), while the dotted lines indicate actors that were not present across all
cases (i.e., TA actor). The largest arrows represent the important nature of interactions between the actors at the district and school levels.

This section builds upon this simplified framework to identify the critical factors in snack policy implementation. Broadly, snack policy implementation is a phenomenon centered on how the implementing actor—with traditionally low power in the school district—leveraged power and interacted with other actor groups in order to activate and facilitate the implementation process.

The next section describes the context in which the framework is situated and details each component of the conceptual framework and outlines their key interactions.
Figure 2: Simplified conceptual framework for snack policy implementation.
An important context for the conceptual framework is the implementation of the National School Lunch and SBPs standards (USDA, 2012), which were mandated as a result of the Child Nutrition and WIC Reauthorization Act of 2004 (P.L. 108-265). School meal guideline reform received national attention, partly because it was championed by First Lady Michelle Obama and her Let’s Move! campaign. Further, students’ responded to this reform via social media (e.g., #ThanksMichelleObama). Until July 2014, positive messaging about the school meal standards was not widely circulated in the media (Porter & Armour, 2014). In May 2014, there was national attention on the House Appropriations Committee as they introduced waivers to delay implementation of the standards (US House of Representatives, 2014). Although respondents were not directly asked about these media stories, it is likely that respondents in this study were exposed and potentially influenced in their perspectives about federal mandates toward school food policies.

The predominantly negative attention toward school meals was reflected in comments by almost half of FSDs (5 of 11) in this study, who spoke of the HUSSC: SL award as a way to repair the reputation of their CNS department. As an FSD from Kansas observed:

And it helped to get the HealthierUS School Challenge, it helped to get patted on the back, to make these kids realize, the teachers, and the parents realize that the kids weren’t getting tortured [laugh].

While the timelines for snack policy implementation varied across cases in this study, all cases applied for and received the HUSSC: SL award recently. Thus, many were engaged in implementation activities amidst the negative perceptions of school meal guidelines implementation. The potential impacts that the award had on local Child Nutrition Departments and on school food environments in general is an important context from which to understand the stories of snack policy implementation told from the experiences of the local actors.

Another important context for the snack policy is that it is—as discussed—one component of the local wellness policy. While Smart Snacks regulation has its own
implementation and monitoring for compliance provisions that are separate from the local wellness policy, the Smart Snacks regulation refers to the local wellness policy on some of these items—such as the designee responsible for oversight. In the cases presented in this study, many wellness activities were implemented concurrently as one initiative in the school. Further, many of the actors involved with snack policy were also involved with wellness policy implementation, as is described further below. In this way, while this study focused on snack policy implementation, there are overlapping features with wellness policy implementation that run throughout this study and will be explicitly delineated.

1. **Federal law**

Both federal laws and the Smart Snack regulation are included in this framework due to their influence in prompting both state and local school district action in snack policy development and adoption. While not all actors mentioned the federal mandate, 8 of 39 actors cited the federal law as the reason for their initiatives and two actors mentioned the Obama administration (e.g., “ever since Michelle Obama put out about health for youth”). However, state law and state TA were more salient (as marked by bold boxes) than federal law in actors’ understanding of snack policies. In addition, often actors were introduced to federal TA resources (e.g., Smart Snacks Product Calculator and Team Nutrition website) through state trainings. The influence of the state and its implications will be described further.

2. **Actor groups**

The CIT understands policy implementation as a dynamic interaction between actors who vary from individuals to organizations (Bressers, 2007). As discussed in Chapter II, the main actor groups are implementing actor and target actor (Bressers, 2009). In addition, this study adds TA actor and support actors as having unique roles in snack policy implementation. This study did not identify the linking actor role, as described by Mohlakoana (2014). Table V lists the main actor groups identified in this study with a brief description of their roles.
Typically, the implementing actor is in an authoritative role (e.g., government body that adopted the policy); however, in the case of snack policies, the actor most commonly undertaking implementation (i.e., district-level FSD) is not in a position of formal authority within the school district or high school. This creates a challenging dynamic for the implementing actor, who has relatively low power. The next section describes each of these actor groups, their role in the implementation process, and highlights the salient characteristics of each.

<table>
<thead>
<tr>
<th>Actor Type</th>
<th>Role at school/school district (interviewed)</th>
<th>(#)</th>
<th>Description of Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Implementing Actor</td>
<td>FSD (11)</td>
<td></td>
<td>Responsible for snack policy implementation(^a); most commonly the lead applicant for HUSSC: SL award</td>
</tr>
<tr>
<td>Authority Actor</td>
<td>Principals (7)</td>
<td>(1)</td>
<td>Formal authority role in the high school or school district</td>
</tr>
<tr>
<td>Support Actors</td>
<td>Athletics professionals (7)</td>
<td></td>
<td>Supportive role for implementation; typically interested in supporting/promoting students' health</td>
</tr>
<tr>
<td>Technical Assistance (TA) Actor</td>
<td>TA providers (nonprofit and school district) (3)</td>
<td></td>
<td>Source of technical knowledge and support to Implementing Actor; may communicate with other actor groups to provide education or seek buy-ins</td>
</tr>
<tr>
<td>Target Actor</td>
<td>High school students (0)</td>
<td></td>
<td>Provide support or resistance to implementation efforts</td>
</tr>
</tbody>
</table>

\(^a\)The extent of the FSDs jurisdiction over various snack venues varied by case; however, overall, all actors identified the FSD as the main implementing actor of snack policies. The individual case summaries in Appendices E–M provide detailed descriptions of the FSD’s jurisdictions. In addition, Table IX summaries which venues were overseen by the FSDs.
a. **Implementing actors**

The implementing actor is defined as the entity in charge or holding responsibility for policy implementation (Bressers, 2009). In the case of snack policy implementation, the FSD is the most knowledgeable about nutrition guidelines, as an FSD from New York describes, “I’m probably the only one who fully understands the legislation right now,” (referring to Smart Snacks in Schools, which is in fact a regulation). She notes that this was also the case when she decided to apply for the HUSSC: SL award. As Table VI highlights, in seven of nine cases, there was a separate wellness champion for local wellness policy implementation. As discussed, the wellness champion is described extensively in the literature as critical to the wellness policy implementation process (Bassler et al., 2013; Sanchez et al., 2014; Schwartz et al., 2012; Wood et al., 2010). While the wellness champion role varied across cases, the FSD was the implementing actor for the snack policy component in every case. In all but one case (Illinois), the FSD was also responsible for submitting the HUSSC: SL application. This is one way that the current sample is unique: FSDs with HUSSC: SL award experience will likely have a level of knowledge about other wellness provisions (i.e., physical activity initiatives). In this study, the implementing actor was also on the school or district-level wellness committee for seven of nine cases and worked closely with the wellness champions during implementation.
TABLE VI
ACTORS RESPONSIBLE FOR SNACK POLICY, HUSSC: SL APPLICATION, AND WELLNESS CHAMPION

<table>
<thead>
<tr>
<th>Case</th>
<th>Implementing Actor (Snack Policy)</th>
<th>Actor who submitted HUSSC: SL Application</th>
<th>Wellness Champion (Wellness Committee)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>FSD</td>
<td>FSD</td>
<td>Director of health services*</td>
</tr>
<tr>
<td>CA2</td>
<td>FSD</td>
<td>FSD</td>
<td>Vice-principal &amp; athletics coordinator*</td>
</tr>
<tr>
<td>IA</td>
<td>FSD</td>
<td>FSD</td>
<td>Family &amp; consumer science teacher (co-leaders)*</td>
</tr>
<tr>
<td>IL</td>
<td>FSD</td>
<td>Principal (former) /Athletics coach</td>
<td>Athletics director*</td>
</tr>
<tr>
<td>KS</td>
<td>FSD</td>
<td>FSD</td>
<td>District registered nurse (co-leaders)*</td>
</tr>
<tr>
<td>MS</td>
<td>FSD</td>
<td>FSD</td>
<td>FSD</td>
</tr>
<tr>
<td>NY</td>
<td>FSD</td>
<td>FSD</td>
<td>None; formerly social worker</td>
</tr>
<tr>
<td>TX</td>
<td>FSD</td>
<td>FSD</td>
<td>FSD</td>
</tr>
<tr>
<td>VA</td>
<td>FSD</td>
<td>FSD</td>
<td>HE teacher*</td>
</tr>
</tbody>
</table>

*Wellness champions who were interviewed in the current study

It is important to note that the FSD is responsible for policy implementation within the district’s CNS department (i.e., school meals and à la carte items). However, for snack and local wellness policy implementation overall, the FSD was often involved with activities outside of their daily job duties. As a family and consumer science teacher from Iowa described, success was a result of her and the FSD (wellness committee coleaders) providing unpaid hours and moving forward despite resistance:

[sigh] It takes some people who really strongly feel it’s a good thing and are willing to give their own time. Both [FSD] and I have both given a lot of free hours. We don’t get paid to do this, it’s all on volunteer time. We put a lot of summer hours, a lot of after-school hours in and plus we’ve been pushed back and we’ve hit resistance, and you just gotta keep going. It’s not easy.

Thus, while it may be assumed that the FSD as the implementing actor was simply doing the job of snack policy implementation within her paid job duties, it is clear that the FSDs in this study (and wellness champions) gave above and beyond their role. As the respondent above
asserted, actors “really strongly feel it’s a good thing,” indicating that a strong personal value led them to strive for implementation despite the additional hours required. The construct of motivation and its impact on implementation are discussed later in the chapter.

The implementing actor was charged with responsibility for implementation and leveraged power to interact with other actors in the school and school district to gain buy-in and support for the process. The critical importance of generating these interactions was highly dependent on the implementing actor. As a cafeteria manager from California 2 described:

I say it starts from my director [FSD], all the stuff he’s talking about and he takes his message everywhere. He’s made all of us have such a good connection with the school board, the administration, they support us so much, they’re the ones that are helping us succeed. He’s made us all such, our thinking, so differently. And by us being a team like that, we will succeed. I really think that’s the whole key. We have support from everybody.

The next section describes the sources of power that the implementing actor utilized in order to stimulate these interactions.

i. **Power**

Bressers (2009, p. 3) describes power as being “largely a result of attribution to an actor by others.” This description explains how the FSD garnered power from other sources (including other actors) in order to move their efforts forward. Further, CIT posits that the constructs of the implementing actor may be influenced by wider political, economic, and social contexts; this suggests a passive process in which actors are recipients of such influences. However, in this study, the implementing actor actively leaned upon other sources in order to enhance his/her power. As outlined in the conceptual framework chapter, power is conceptualized as capacity and control. The implementing actors’ power—in the form of control—was derived from: (1) hard power from on-the-books policies and support from authority actors (both described next); and (2) soft power via his or her influential character. The implementing actor’s power—in the form of capacity—was derived from: (1) TA from state and
district entities; and (2) customized TA from peer-to-peer networks or external TA entities. Figure 3 illustrates the implementing actor’s power sources.

This figure offers a nonhierarchical view of the constructs and their influence on the implementing actors’ power. In the adapted conceptual framework (Figure 2), this is represented with the arrows in the top half of the framework.

ii. **Power: control**

**Hard power from on-the-books policies.** Implementing actors leveraged the power of on-the-books policies to advocate for their proposed changes. When strong state law was present, it had a pervasive presence throughout actors’ discourse (with the exception of the California1 case. When strong state law was mostly absent (as was the case for three high schools), district policies or state TA were key sources of power (the latter will be
described later in the chapter). For example, one FSD observed that the snack policy had not been implemented upon starting his new position; he appealed to the school district administration that he was merely “putting into motion” what the school board had already adopted, citing the district wellness policy in order to gain buy-in for the myriad initiatives he was championing:

When I first got here, I really stressed the current wellness policy that was in place and asked that we go by those guidelines. The policy in place said unhealthy options would not be available to students, so they hadn’t followed through on that completely, so I garnered support from the administrative team and we had those vending machines removed.

In this way, by stressing the wellness policy, he legitimized his initiative and gained administrative support. In addition, an implementing actor from Texas stressed the authority of the policy; as he states, “nothing happens” in education without a board policy:

Schools make decisions based on policy. The curriculum is based on policy. Even the salaries are based on school board policies. So as long as there’s a policy that is within hands reach, so you can actually print it out and put it on paper, it helps to reinforce what we’re doing.

Lastly, an FSD from Kansas referenced an on-the-books policy when reprimanding students (and the teacher) who had brought junk foods into the classroom:

We still have teachers that let the kids sneak in brownies and stuff like that. I walked down and into a classroom and they were all shoving brownies into their mouths, and I was like “what is this?!” because it’s policy for one thing, and it’s against the law for another thing!

Her use of the term “against the law” illustrated how she’s able to lean on the policy for authority as she attempted to enforce the snack policy rules. This power of “the law” is cited by authority actors as well; a principal from Iowa described a discussion he had with his FSD during a wellness committee meeting:

We discussed what is the proper or legal item to place in the student vending machines during school hours, versus what is not a legal item to put in the machine.

The principal’s use of the term “legal item” gave power to the vending machine changes and reflected the strength of the state law as it influences the discourse of local actors. Thus, while
in the broader wellness policy literature, simply developing and adopting a policy is insufficient for full implementation (Barnes et al., 2011), this study found that the snack policy specifically has an important role to play to the extent that it acts as a source of power for implementing actors.

**Support from authority actors.** All actor groups identified the importance of administrator support due to the administration’s formal authority power. On the wellness committee, a FSD from New York spoke of the importance of having a person with “some kind of clout” as part of the team:

The wellness team is composed of one administrator who oversees the committee, and that person has to have some kind of clout over the people who are on the team. The reason I say that’s because they have to have um, some kind of um, I don't want to say power but some kind of authority, to pull the team together, and institute some of the policies that the team comes up with. Um, you can’t just have a volunteer from outside being the wellness team. Although the FSD explicitly stated, “I don’t want to say power,” she was in fact directly referencing power as it is conceptualized in this study. In all cases, the FSD communicated with principals and district-level administration to gain their support. In smaller high schools, this occurred organically as a result of longstanding relationships or physical proximity to administrators’ buildings. In larger high schools, FSDs were given a seat at administration meetings or access to other channels of communication to reach principals. As a nurse from Kansas described, the FSD worked alongside the principal to implement changes to nutrition standards:

We have to work alongside the principal to get their approval and if the principal is not supportive, it’s going to be hard to get the students fired up and in line to support it. It kind of works from the top to the bottom.

An FSD from Texas described how he used his seat at the district-level administrator meetings to elevate the reputation of his department:

I’m privy to the director’s meeting, I have a seat at the table with the administrators. Some of your other school districts, it’s not organized that way. It's kind of like Child Nutrition is the boot heel to the school, nobody cares what they do.
The FSD contended that his “seat at the table” with the administration allowed him access to this source of hard power that FSDs from other school districts may not have. These findings are consistent with literature summarizing the critical nature of administrative support to snack and overall wellness policy implementation (Bassler et al., 2013; Budd et al., 2012; Molaison et al., 2008; Sanchez et al., 2014; Stinson et al., 2009; Wood et al., 2010). The current study’s findings are concordant with the literature; however, the study suggests that it is not solely administration’s support that is critical, but how that support is actively leveraged by the implementing actor to facilitate implementation. Without this power being directed toward the appropriate interactions and processes, the implementation process would not be successful. Taken together, this study demonstrates how administrator support fits into the context of implementation as a dynamic process involving many actors.

**Soft power.** Soft power is described as the ability of an actor to influence other actors by means other than formal authority, such as influential character (Bressers, 2009). Implementing actors were described by other actors (and themselves) as exhibiting such characteristics in all but one case; descriptions included: “infectious,” “passionate,” “dedicated,” “go-getter,” “a real powerhouse,” “an advocate,” and “well-liked.” An FSD from California described himself in a way that captures the general character of this actor group:

I’m very high energy, I have a lot of ideas, and a lot of concepts, and I truly believe and have a passion for what we do here. For what the job of this department is. It’s easy for me to come here and try to install those changes because I believe in them. I’m not looking at a rule book and saying, “gosh darn it, I gotta install those changes!” I don’t look at it that way. I look at it as “this is the right thing to do and the right time to do it.” So it’s a lot easier for me to support those things. In turn, I think it’s a lot easier for the community to support those things when they see that this entire team and this entire district, for the most part, support those changes.

This quote highlights the actors’ passion for reforming the school food environment and also illustrates how their influential power is fueled by their belief that it is “the right thing to do.” In other words, personal values toward the intentions of the policy are critical to an actor’s
influential nature. This characteristic of implementing actors poses important implications for TA providers; this will be described further below. Further, a PE teacher from the California 1 case described the implementing actor as the genesis of implementation activities:

It starts with [FSD] and her staff. [FSD] does a phenomenal job, learning the policies and then implementing them right away. She doesn’t wait for deadline. She’s like, “nope, we gotta get this! Let’s go, let’s go, let’s go!”

In this way, the implementing actor is described as a proactive professional who is ahead of deadlines. The next section describes the sources of power utilized by the implementing actor in the form of capacity.

iii. **Power: capacity**

Capacity was defined by Bressers (2009) as time, finances, and personnel; Mohlakoana (2014) added access to adequate resources to this definition. Bressers (2009) reported that although actors may gain power in the form of control, implementation will likely stall if the appropriate resources are not assigned. This is concordant with literature citing insufficient staffing as a major barrier to wellness policy implementation overall (Schwartz et al., 2012). However, only two of nine cases in this study reported obvious examples of implementing actors with additional capacity for snack policy implementation. In the California 1 case, an FSD removed à la carte sales to boost the school meal programs and thus generated additional funding for other initiatives related to snack policy implementation. This example is consistent with others in the literature that demonstrate an increase in school meal participation (and subsequently, revenues) when snack food sales were decreased or removed (Basser et al., 2013; Long et al., 2013; Peart et al., 2012). Further, in the Kansas case, the FSD was hired with wellness policy implementation as part of her job description; this allowed her time within paid work hours to focus on snack policy implementation. With the exception of these cases, the
majority of implementation occurred without additional funding or personnel. However, resources in the form of TA acted as a source of capacity to implement the policy.

Actors relied on resources from several different TA entities; as expected, there was not one static model of TA that applies across cases. Instead, actors utilized a wide variety of sources, including: (1) state government resources; (2) state department consultation (hands on TA); (3) peer-to-peer knowledge exchange and support; (4) federal government website (e.g., Smart Snacks Product Calculator; and (5) hands-on TA from AFHK, AHG, and Kaiser Permanente jointly; and (6) website and informational resources from a wide range of nonprofit organizations. It is important to note that often state TA entities introduced and trained actors about federal resources such as the Product Calculator; thus, these two entities were often not discussed separately. Further, since the sample is based on HUSSC: SL schools, many accessed the award applications through the state website and used consultants (prior to submitting to the federal level); this is likely why the state played a strong role in the receipt of their award. Most notable among these is the Mississippi case, where monetary incentives were provided by the state for HUSSC: SL certification (Gourdet et al., 2014).

In Table VII, TA sources are delineated as either passive sources (e.g., websites and resource that are available for general information) or active sources (e.g., hands-on consultation that are tailored to the unique needs of the school/school district). Regardless of the source, TA was considered useful if it provided customized, directly applicable information, and resources. There were two notable characteristics of TA. First, many FSDs described the Smart Snacks Product Calculator to be useful because it provided relevant technical knowledge about compliant items and is a resource that can be shared with other actors in snack venues. As the FSD from Iowa asserted:
I myself, I can’t see what you’d need for training other than using the calculator. If you’ve got the calculator you can put in whatever items you’ve got, you know you can offer them.

Second, active and hands-on TA, whether it was from state-level consultants or peer-to-peer TA or from nonprofit organizations, was described as highly valuable. In these cases, resource and experience sharing of specific issues was vital to the process of improving capacity. This is consistent with previous studies examining policy, systems, and environmental change in schools; hands-on TA was reported as helpful due to its customized approach (Fagen et al., 2014). In addition, in the Illinois and New York cases, the FSDs sought TA from peers not necessarily from their local area or even within state; these peer networks connected cross-state FSDs based on the characteristics of their school district (e.g., FSDs from large, urban school districts). As an FSD from Illinois shared:

So, I talk a lot to my peers in [lists different cities]. Those are probably the ones that I talk to most. I have kind of a monthly call with them and we share some of our challenges and best practices. We visit each other’s schools and districts in order to see what you’re doing, what I’m doing, how can I incorporate some of what you’re doing, how can you incorporate what I’m doing.

Lastly, implementing actors were grouped into those who utilized a wide range of resources, compared to those who relied mainly on the state department. In this study, FSDs from larger school districts reached out to a larger range of TA sources. The FSD from California 1 described these and revealed his perception that a wide range of TA sources increased his capacity to implement his initiative:

I really reached out to the larger nutrition community as a whole. For example, I’m just gonna name off a few of our collaborators: Kaiser Permanente, an insurance group here. Not-for profit-community health. Let’s see . . . Alliance for Healthier Generation. The farmers market. The state Department of Education. I incorporated a lot of these collaborations and partnerships to utilize their resources. Because I myself alone, there’s no way that I could’ve made these changes.
### TABLE VII

**SOURCES OF TECHNICAL ASSISTANCE**

<table>
<thead>
<tr>
<th><strong>Federal Government</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Product Calculator &amp; USDA website</strong></td>
<td>• Informational resources</td>
<td>NY</td>
<td>KS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>State Government</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Workshops, webinars</td>
<td>All cases</td>
<td></td>
</tr>
<tr>
<td><strong>Passive</strong></td>
<td>• Hands-on TA from consultants, peer-to-peer exchange</td>
<td>All cases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Website, resources, pamphlets</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Local Public Health Department</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Hands-on TA from consultants</td>
<td>CA1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Peer Networks</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Colleague FSDs from other districts</td>
<td>MS</td>
<td>VA</td>
</tr>
<tr>
<td></td>
<td>• E.g., School Nutrition Association meetings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>District TA Entity</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Workshops, webinars, hands-on TA from school health specialists</td>
<td>IL</td>
<td></td>
</tr>
<tr>
<td><strong>Passive</strong></td>
<td>• Website, resources</td>
<td>IL</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Nonprofit Organizations and Universities</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Workshops, webinars, hands-on assistance</td>
<td>CA(1)</td>
<td>CA(2)</td>
</tr>
<tr>
<td></td>
<td>• E.g., AFHK, AHG, Kaiser Permanente</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Website, resources, pamphlets</td>
<td>CA(1)</td>
<td>CA(2)</td>
</tr>
<tr>
<td></td>
<td>• E.g., Dairy Council, Food Research and Action Center, American Heart Association, CDC, Center for Eco-Literacy</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Sodexo/Aramark</strong></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Active</strong></td>
<td>• Hands-on consultation</td>
<td>IL</td>
<td>TX</td>
</tr>
<tr>
<td></td>
<td>• Access to peer-to-peer networks</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

While implementing actors from all cases listed state TA as an important source of this capacity, two cases also noted that their states were ill-prepared to provide TA. Both of the implementing actors described themselves as proactive professionals and lamented their states’ inability to assist:
I spent I don’t know how many hours going to meetings about these things with the Department of Education [State Department of Education] and they didn’t even know what they were doing. So, there was so much wasted time and they needed to have their bricks in a row before they started introducing it to us because some of them still don’t know what they’re doing. I could’ve probably went and taught a class compared to what some of them knew. Not that I, it’s just that, they were lost.

While this may no longer be an issue with the current Smart Snacks rule, it represents a lost opportunity for states to effectively lead and assist FSDs in the difficult implementation tasks that they face. This study reveals that exemplary HUSSC: SL schools relied heavily on the state departments, not only for TA to attain certification but also for resources and tailored assistance on how to implement the criteria successfully.

iv. **Interactions**

Effective interactions are critical to snack policy implementation due to the wide range of actors that may be involved across the venues on the campus of any high school. The implementing actor leveraged power to mobilize other actors and stimulate interactions within their school communities. The goal of strong interactions is to gain cooperation, buy-in, and a shared understanding of snack policy changes amongst all key actors—including target actors (Bressers, 2009). This goal was reached via different types of interactions, such as internal (i.e., students and faculty) and external (i.e., parents and outside community members); communication; nutrition education; and participatory engagement (predominantly with students). Figure 4 is a simplified, nonhierarchical outline of how the implementing actor’s enhanced power allowed him/her to stimulate interactions that facilitated the implementation processes and actions. Each of these interaction mechanisms is described below.
The goals of effective interactions are similarly described in a related school wellness study with an alternative implementation theory. Using a diffusion of innovations model, Harriger et al. (2014) describes the “clarifying stage” of implementation, in which school members socially construct the intentions and goals of the new policy. A strong communications phase is seen as highly important to the policy being accepted and becoming “embedded” in the school’s organizational structure. Bressers’ (2009) conceptualization of the iterative interactions phase—which includes actors’ influencing and being influenced by one another’s personal values and external motivations, as well as larger contextual factors—aligns very well with the phenomenon being explored in this study. For example, one FSD from Kansas experienced resistance from high school teachers:

Interviewer: What was their reason for resistance?

Respondent: It’s terrible; they didn’t want the government telling them what to do. And I can understand that, I don’t really like the government telling me what to do, but in my view, it wasn’t that, it’s showing these kids healthy guidelines.

The FSD continued on to explain how she repeatedly interacted with teachers to discuss their ideological rationale for resistance and then educated them on how the snack policy’s goal is to protect children’s health. In this way, the implementing actor shifted other actors’ understanding.
of the policy’s intentions, a critical activity in altering their support for implementation activities.

The FSD’s ability to change other actors’ socially constructed understanding of the policy was critical.

**Participatory approach.** The implementing actor’s participatory approach was consistently described by other actors in each case. For example, an HE teacher from California 2 described her implementing actor’s approach as: “It’s not YOU do it, it’s WE do it!” and the same FSD confirms this as he described his strategy:

> Just with being steadfast in my methods. And being an advocate for listening to what their needs were. And what their concerns were. You know, being a team player. Trying to understand what their needs and their challenges were. But also being cognizant that the mission that we have is for the betterment of the children’s lives moving forward.

Therefore, the implementing actor’s participatory engagement strategies were influential in garnering buy-in from other actors in the school. As an FSD from Illinois explained her strategy for working with principals:

> I usually try to figure out what is the barrier. Or what is it that I need to solve for them to get on board? So it may be an operational issue, a funding issue, it may be just that “I-never-knew” issue. So if I’m coming from a place of, I’m here to support you, I’m here to advocate for you, I’m here to help you. They’re usually willing to tell me what’s the dilemma that they’re stuck in, that I can help them solve.

Further, one cafeteria manager in California 2 reported that by being more actively involved with implementation activities, she confidently communicated the new practices to her 15 staff members who are directly involved with food preparation and service. In this way, the implementing actor influenced and activated her fellow actors’ technical knowledge as well as their sense of empowerment. As the cafeteria manager described:

> He doesn’t just throw it at you and say “just figure it out” . . . you get paper and work and stuff you can read. This is the first director that’s ever really done that, he’s teaching us to look for this yourself . . . he tells you why you’re doing it . . . explains it to you . . . he’s stretching us, challenges us, and get us to learn more and see what we can do. It makes you feel good that someone could do that.
This comment is remarkable, given the cafeteria manager ostensibly had the lowest power of all other actors’ interviewed. The FSD in Illinois so recently invested in educating her cafeteria managers and shared her lessons learned:

I think what we learned for the most part was that people were hungry for data and information. That was the first time they felt like someone was investing in their professional knowledge of the program.

With the exception of these two examples, the education and involvement of cafeteria managers was limited, resulting in a strong cross-case theme of disempowerment and statements such as, “I just do what I’m told.” These two outlier cases from Illinois and California exemplify the potential of stronger interactions as a result of educating and empowering those lower in the hierarchy in the policy implementation process. In February 2014, the USDA released a proposed rule (Professional Standards for State and Local School Nutrition Programs Personnel as Required by the Healthy, Hunger-Free Kids Act of 2010). In addition to setting minimum standards for FSDs, this rule proposes that states provide at least one training for “school nutrition personnel” per year (USDA, 2014). If passed as a final rule, this federal mandate will address the importance of the FSD as a critical actor in the school food environment; it will also potentially engage more cafeteria managers and their staff in snack policy implementation.

**Communication.** Communication about snack policy and practice changes was critical and conducted through many avenues (e.g., newsletters, daily announcements in the classroom, Facebook, district website). The importance of authority actor support is highlighted here, as often implementing actors need their permission to utilize these modes of communication. Actors described the importance of both internal and external communication strategies; such findings are consistent with the previous literature (Bassler et al., 2013). Several district websites had nutrition education activities and interactive game links targeted toward students. Such links include: MyPlate for kids (USDA), Kids in the Kitchen, Power
Panther Series, Mission Nutrition, and other nutrition and fitness games online. All cases utilized either traditional and modern modes of communication or both in order to reach target actors (students) and the wider community (parents and other community members).

**Nutrition Education.** Nutrition education was a strong vehicle for increasing awareness and acceptance of snack policies in this study, particularly for education provided to the target actors. This is concordant with a study examining facilitators toward snack policy implementation; nutrition education was reported a critical tool toward changing the social norm and culture about school food environments (Bassler et al., 2013). Other actor groups reported that nutrition education initiatives were critical to garner buy-in from the students for the snack policy. Some examples of programs include Farm to School programs, cross-age nutrition teaching program (e.g., high school students teach elementary children about nutrition), and other local food programs, such as those provided by the Center for Ecoliteracy. Lastly, implementing actors worked hard to engage students in the changes being implemented to snack venues. This component is described further in the target actors section.

The following sections describe each actor group and how the CIT constructs operated for that particular group and contributed toward snack policy implementation. The motivations construct is kept brief in each section (as well as for the previous implementing actor section) as it is expanded further in the final section of this chapter.

b. **Authority actors**

**Low information.** Authority actors did not require a high level of technical knowledge about the policy in order to play a key role in facilitating implementation. This is consistent with a study examining the Texas Public School Nutrition Policy by Roberts et al. (2009, p. 294), who found that “it was not unusual for parents, teachers, and principals to not
know the details of the new policy.” In fact, most authority actors in this study openly admitted that they knew little about snack standards. As a principal from New York commented:

I think [FSD] is probably one the most capable people I've seen in not only the knowledge of federal or state guidelines, but of monitoring them. She is inflexible. And to her credit. She is very rigid about not putting the district in any jeopardy of noncompliance or losing funding of any sort. So, you know, the limitations I have only because I'm not so much involved in it, but knowing when I deal with it, her knowledge and policing is pretty intense.

While many principals received informational resources from FSDs, their level of knowledge remained just enough to be able to communicate changes to the school community. Thus, across all principals in this study, their level of information about the policy was minimal.

**High Power.** Despite their limited technical knowledge, authority actors did not play a passive role in their involvement with snack policy implementation. This actor group is important due to their formal positions of authority and a potential source of power for the implementing actor. As one function of their role, principals are viewed as the hub of interactions in the school; thus, it is critical that they are supportive and willing to be the center of interactions for the snack policy initiatives. A district nurse from Kansas described:

The principal is the go-to person in the school. If the teachers have a complaint, they complain to the principal. If the parents have a complaint, they complain to the principal. We have to make sure they know that's going on so they can deal with questions and differing opinions.

Accordingly, principals agreed that communication is a vital component of implementation. As a principal from Texas described, communications with parents was important to limiting resistance and complaints:

The biggest part is just effectively communicating it to parents. And consistently communicating it to parents. Telling them why you believe these things that you do and that we are dedicated to student and family health really helps them [parents] they believe that we're just not saying it, we really are interested in their health and want the best for them. So I think that's uh, it helps us to promote that message, and assures that we're not trying to do something to them, we're trying to do something with them . . . and that's promote health among their students and for them as well.
This quote highlights a principal’s involvement with communications and his personal dedication to health and wellness for students and their families. This principal asserted that focusing the messaging to student health and what is “best for them” was most effective in garnering buy-in from their constituents.

**Motivations.** Consistent with the implementing actor, the authority actors’ communications to all other actor groups closely involved their personal beliefs and values. Three of the seven principals were ex- or current sports coaches or had a personal interest in athletics; others were parents interested in nutrition and were concerned about being role models in feeding their own children. This is consistent with advice from the Healthy Eating Active Communities group in California; they recommend engaging an authority actor with a personal interest in health (HEAC, n.d). The principal from New York explained why he is interested in being a role model for his daughters:

> Because young people, they watch everything that you do. If you’re not making a smart choice they will either pick up upon it, and call you out on it, or they will develop it as their own habit, and that’s what being a positive role model.

Four of seven principals spoke of the importance of role modeling practices that are promoted by the wellness policy. A principal from Kansas described the importance of his role:

> I think it’s important that if I were to walk up and down the hallways of the high school here with a can of pop in my hand, for 180 school days, the kids are gonna see that and think, “ok, there’s the leader of the school who thinks it’s perfectly acceptable to walk around with a sugar filled drink throughout the course of the day.” Now if you walk around with a bottle of water, that’s a healthier choice and kids see, “ok here is the leader of the building, making a healthy choice.” If one or two kids pick up on that, that’s great.

This theme of role modeling was also observed with the support actors group and is consistent with previous studies that found staff and teacher role modeling was considered a strong facilitator for implementation (Bassler et al., 2013). In addition, all but one principal agreed that decreasing unhealthy food and beverage items would impact student academics,
which is a high priority outcome for this actor group. A principal from California 2 explained the most common perspective:

If you’re eating junk foods, you’ll have issues with your performance because you get the sugar spikes and then you get the sugar rush, then the lull, so I would say, just in my own personal opinion it does impact academics if you’re not well rested or well fed.

This comment demonstrated principals’ perceptions of the snack policy’s impact: if a principal felt the policy could effectively improve academic outcomes, he or she would be more likely to support implementation efforts. However, having a supportive attitude alone is insufficient, according to one TA provider, who stated:

I don’t think I’ve talked to any principal who didn’t already know the importance of health, and education and disagrees with anything, or its news to them. It’s more the operational things that they have a hard time with.

In this way, the principals’ supportive approach must be met with actors who can execute the operational aspect for successful implementation.

Principals varied in the ways they supported snack policy implementation. In one case, a principal agreed to pay the shipping to mail the HUSSC: SL application; this was perceived as a gesture of support by the FSD. In other cases, principals spoke to teacher groups at staff and administration meetings, facilitated nutrition messages and updates in newsletters, ensured vending machines were turned on/off at the appropriate times, and distributed resource materials given to them by FSDs. As one FSD from Iowa stated:

He stood up for me when we were going through issues with other teachers. He basically went into a cabinet meeting and laid the law down, that this process needs some work from all administration and they need to jump on board.

In summary, authority actors are critically important to the process of snack policy implementation due to their inherent power and ability to facilitate interactions as the actor at the hub of communications. Not surprisingly, the authority actors in this study were enthusiastic about student health and improving the school food environment, with the exception of the principal in Texas, whose motivations were influenced by external pressures (i.e., meeting state
standards due to the strong “stick”). Therefore, implementing actors can be effective by educating authority actors on the intentions of the snack policy to improve student health and academics. Sharing this common goal may appeal to the authority actor’s motivations. If this is insufficient, emphasizing the federal rule (Smart Snacks) and any other applicable state law or district policy to appeal to their external motivation may help to gain their support. This is discussed further in the following section.

c. Support actors

While several respondents in the support actors group were wellness champions for the overall wellness policy (Table VI), the role of most support actors’ in snack policy implementation was limited to that of supporting the FSD. As one district nurse from Kansas described, the FSD was the implementing actor due to her expertise in nutritional knowledge and her role was as a support person:

Yes, particularly because she’s [FSD] in charge of dealing with vendors, menu planning, that’s because she better understands what has to happen, she’s more knowledgeable on certain policies and regulations than the rest of us would be that are on the policy. In that area, we’re just here to support her.

Many support actors are in health-related positions, such as a PE teacher (n=6), family consumer science or HE teacher (n=3), nursing/health services (n=2), and cafeteria managers (n=5). Support actors’ professional fields likely impact their personal values toward health and food environment reform. Further, they may also experience professional (external) pressure to participate in health-related initiatives as a result of their position. This is reflected in the support actors’ strong values about promoting and protecting the health of students. These values were central in their support for the implementing actor.

Motivations. Like authority actors, several support actors spoke of the importance of role modeling. This commitment to be good models reflects their personal values about student health. The majority of support actors in this study supported changes to the food environment.
An athletic director from Iowa found that role modeling has the potential to impact health behaviors that extend beyond the school:

I think we need to be good role models, we can’t control how kids are eating at home, but being good role models with the things that we promote, and the lifestyles that we are teaching goes a long way cuz the kids can influence home life as well.

Other perspectives about obesity and the snack policy are discussed in the following sections.

**Information.** As discussed, support actors derived their technical knowledge about the snack policy from the FSD. Similar to principals, they reported limited knowledge of nutrition standards. As one PE teacher from California 1 discussed the principal’s involvement in the snack guidelines, he shared that every actor has expertise in a given area:

Again it’s Nutrition Services that does it, cuz you know, there’s so many guidelines, everyone’s got their little piece of the puzzle. When you’re running the school, everyone’s got their piece of the puzzle to make it work.

**Power.** Support actors in this study had varying levels of power at the district and school-level but none were in formal positions of authority like the principals or district administrators. Within this group, one distinct actor was cafeteria managers, who were typically on the front lines in the high school cafeteria. All but one cafeteria manager stated that they “go ahead and do what I’m told,” indicating their low position of power. Thus, while most FSDs attributed part of their success to the cooperation of their front-line managers, the actors themselves typically did not view (or did not self-report) their role in the process to be of importance, other than to follow the orders handed down to them. As discussed previously, this was a lost opportunity for gaining interactions from those on the front lines of the school food environment. The potential to engage this group of professionals (and its potential impact on implementation activities) is discussed further below.

d. **Technical assistance actors**

This is a unique actor group that emerged out of respondents identifying other actors who were involved. While the sample for this actor group is limited to only two cases
(Illinois and California 2) for non-state government entities, it is worthwhile to note that all cases referred to TA from state government as an important contribution to the implementation process. Unfortunately, state TA actors were not interviewed in this study; this is an area for future research. The functions of TA actors were to first enhance access to resources for the implementing actors and thus increase their power (capacity). Second, the TA actors directly engaged with authority and target actors to enhance their buy-in. The latter may be argued as also boosting the implementing actor’s capacity because it provided a function that requires time and resources that the FSD may not have had. The TA actor from Illinois described this as assisting with “advocacy within the school community, to make wellness a priority either to principals or teachers.” The TA actors offered tailored, specific assistance that the implementing actors could directly apply to their work, thus leading to a smoother implementation process.

e. **Target actors**

Actors from all cases described student engagement and buy-in as a critical factor in the implementation process. This is consistent with literature that described the importance of student involvement in snack and wellness policy implementation (Bassler et al., 2013; Brown et al., 2004; Budd et al., 2012; Kubik et al., 2011; Wood et al., 2010). In the adapted framework, this actor group (and parents/community) was shown in a dotted shape as they were not directly interviewed; thus, the study is limited in its understanding of how students see their own role and experiences in implementation (see limitations section). As a result, identification of this actor group emerged from other actors’ descriptions of their strong effort to engage and interact with this group. As a principal from New York stated:

> We involve a lot of student input on the wellness committee. That was very helpful because I think it was buy-in, you know, you have students who were engaged in the decision-making and a lot of them put in what kinds of food choices they would prefer, what they like, that would be both healthy and yet sell.
Implementing actors involved students directly in reforming the school nutrition environment through satisfaction surveys, taste-testing sessions, or simply sitting down and speaking with them. As the FSD from Texas stated, “I’m one to go sit in the cafeteria, especially at the high school and explain to them what’s going on.” In some cases, formal student groups were formed to organize these activities (e.g., Student Nutrition Advisory Committee), while other implementing actors engage with existing student groups (e.g., Leadership Team). In all but one case, the implementing actor connected with or created a student group for snack and wellness policy implementation purposes. As an FSD from Virginia described, her success was founded on her “good relationships with the students.” Further, as a district nurse from Kansas observed, the success of this relationship depended on the FSD’s willingness to connect with the students:

I know because she [FSD] was being honest with them and telling them and hearing them out, they were more open-minded to some of the changes.

Implementing actors engaged students to gain their buy-in, whether it was through one-time activities or building longer-term relationships. One TA provider from Illinois noted that student engagement also can work indirectly to bring the authority actor on board:

We’ve seen a lot of great successes when students take wellness on. And make it that they champion the whole initiative; I think that really makes a big difference. We can come down from on top all we want, but having the students come to the principal and say, “this is what we want!” it makes a more powerful message.

All of these activities to gain buy-in were important to the extent that they helped to form a socially constructed meaning amongst students (and consequently how they communicate changes to parents) about the snack policy, thereby facilitating cooperation and smoother implementation.
f. **Adapted conceptual framework for snack policy implementation**

The adapted conceptual framework expands upon the simplified framework in Figure 2 to include all of the implementing actor’s sources of power, as well as adds other factors that were salient to snack policy implementation. The final conceptual framework—Figure 5—is the final product of all of the motivations, power, information, and interactions discussed in this chapter.
Figure 5: Adapted conceptual framework for snack policy implementation.
3. **Ongoing enforcement and monitoring**

Ongoing enforcement and monitoring for compliance with the snack policy are inherently challenging activities, given the many venues where snack are available and the varying jurisdictions over these venues. These challenges are raised by stakeholders during the public comment period (ICF Incorporated, 2013) and acknowledged by the USDA in the Smarts Snacks interim rule language (USDA, 2013). In the "Recordkeeping Requirements" and “Compliance" sections, the interim rule requires that local education agencies (i.e., school districts) are responsible for documentation (e.g., receipts, nutrition labels, and/or product specifications) of compliance with the regulation. In response to concerns about the many snack venues and potential actors, the USDA holds the school district “responsible for ensuring that all entities involved in food sales within a school understand that the local education agency as a whole must comply with these requirements” (USDA, 2013, p. 39083). The one-year implementation period was built in to allow school districts time for “sorting through who is responsible” and suggests that this activity be conducted in conjunction with the local wellness policy requirement that requires designation of a school official for policy compliance (USDA, 2013). The department suggested that the ideal designee may be local school wellness coordinator(s), who may be trained to develop performance or compliance standards (USDA, 2013). Finally, the USDA will be releasing a proposed rule (that will open for public comment) to outline how they will address monitoring responsibilities of food and beverages outside of the school nutrition programs (USDA, 2013).

In this study, three themes emerged related to enforcement and monitoring: (1) challenges with unclear accountability; (2) loopholes that may undermine the intentions of the snack policy; and (3) imbalance of power and accountability for snack policy implementation. While the theme of loopholes is by strict definition not an issue of compliance to the on-the-books policy, it was a salient concern for these exemplary HUSSC: SL award schools. Further, these
are concordant with concerns expressed by public comments to the Smart Snacks proposed rule (ICF Incorporated, 2013). First, respondents were asked who was accountable for enforcing compliance to the standards at various venues at their high school. Table VIII outlines the actors responsible for venue items during school hours.

**TABLE VIII**

**ACTORS RESPONSIBLE FOR SNACK VENUES DURING SCHOOL HOURS**

<table>
<thead>
<tr>
<th></th>
<th>Vending Machines</th>
<th>School Stores</th>
<th>À la Carte</th>
<th>Fundraisers</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>FSD/</td>
</tr>
<tr>
<td>CA2</td>
<td>FSD/Principal</td>
<td>FSD/</td>
<td>FSD</td>
<td>Cafeteria Manager</td>
</tr>
<tr>
<td>IA</td>
<td>FSD/Principal</td>
<td>*</td>
<td>FSD</td>
<td>Principal</td>
</tr>
<tr>
<td>IL</td>
<td>*</td>
<td>*</td>
<td>FSD/Cafeteria Manager</td>
<td>Principal</td>
</tr>
<tr>
<td>KS</td>
<td>*</td>
<td>*</td>
<td>FSD</td>
<td>Principal</td>
</tr>
<tr>
<td>MS</td>
<td>Principal/</td>
<td>*</td>
<td>FSD</td>
<td>Principal</td>
</tr>
<tr>
<td></td>
<td>District business office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NY</td>
<td>FSD/</td>
<td>*</td>
<td>FSD</td>
<td>*</td>
</tr>
<tr>
<td></td>
<td>District business office</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TX</td>
<td>District business office</td>
<td>*</td>
<td>FSD/Cafeteria Manager</td>
<td>FSD/Cafeteria Manager/Principal</td>
</tr>
<tr>
<td>VA</td>
<td>*</td>
<td>*</td>
<td>FSD</td>
<td>*</td>
</tr>
</tbody>
</table>

*indicates venue not available on school campus during school hours

With the exception of the à la carte venue, actors were often unclear about who was responsible or overtly stated there were difficulties with enforcement. As described by an HE teacher in Kansas:

Interviewer: And when you say it’s not supposed to, is there a person or group who would enforce the policy?

Respondent: That’s when we run into trouble. No, we’re having trouble with the enforcement. It’s supposed to be administration, but some things fall through the cracks.
Interviewer: So that would be the principal?

Respondent: Right, the principals of the individual buildings are supposed to be enforcing that.

This is concordant with studies by Sanchez et al. (2014), who reported that accountability for implementation and enforcement of wellness policies was poorly understood and communicated.

The lack of clear responsibility in monitoring and enforcement is further complicated by administrators who may not view these tasks favorably. When asked about his role in monitoring compliance to snack standards, a principal from Iowa responded that it inhibits his ability to fulfill his primary role:

As the administrative leader of the school, anything that takes you out of instructional leadership and puts you into the management category is not really a positive aspect. We should be here for the mental and academic and physical development of our students. Not necessarily to be a bean counter along the way.

Additional reasons were provided as barriers to ongoing enforcement, including the challenge of adding such activities to an already full list of job duties. In other cases, actors reported overt noncompliance to the policy by some school groups, as a cafeteria manager from California 1 observed:

Keeping track of it. What we’re having, signing off that it’s acceptable, that they’re really doing that and not trying to do something else. I’ve had that happen, we’re signing off on something and the club is saying, “oh yes, we’re selling this and it’s compliant,” and we’ve gone off and found something different.

This is consistent with an evaluability study by Barnes et al. (2011) who reported that monitoring and enforcing fundraising policies was a challenging aspect, as reported by a wide range of school and community respondents from six different school districts. This was also found in this study, as one FSD from Iowa noted:

I know as our wellness committee, we’ve tried to push for more healthy options for fundraising, but as you probably know, people still like to buy the cinnamon rolls and the cookie dough and that’s what brings in the money.
Second, in addition to challenges with accountability for monitoring, several actors discussed examples of loopholes, such as the time-of-day limitation that allows for noncompliant food and beverage items on the school campus and undermines the intention of the snack policy. Unless states or school districts had adopted policies applicable to hours outside of the school day, there were ample opportunities for students to have access to these items on campus. Sales are generally to support chronically underfunded school programs. As an athletics director from Texas described:

The school board, they understand the need for fundraising and the difficulties of you know, of kids and the financial situations, and so we have to do a lot of fundraising on our own, to support several of the programs, and so it's kind of a Catch-22, either we sell it and raise the money, or you don't fund the program, it's a difficult spot to be in, and as of now they're fairly lax on what we sell. There are some chips and those types of things being sold.

Table IX identifies areas with food and beverages sales that fall outside of school hours and thus likely do not meet the snack policy. This table illustrates how the standards may be undermined by allowing access to unhealthy foods and beverages, even in these exemplary high schools.
TABLE IX

SNACK SALES OUTSIDE OF SCHOOL HOURS

<table>
<thead>
<tr>
<th></th>
<th>Vending Machines</th>
<th>School Stores</th>
<th>Fundraisers/ Boosters/Sporting Events</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA1</td>
<td>*</td>
<td>*</td>
<td>Fundraisers (2/yr. that meet guidelines)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Concession during sporting events (does not meet guidelines)</td>
</tr>
<tr>
<td>CA2</td>
<td>*</td>
<td>*</td>
<td>Concession during sporting events (does not meet guidelines)</td>
</tr>
<tr>
<td>IA</td>
<td>*</td>
<td>*</td>
<td>Fruit drives/nonfood fundraising (meets guidelines); Concession items (booster) (does not meet guidelines)</td>
</tr>
<tr>
<td>IL</td>
<td>*</td>
<td>*</td>
<td>Incomplete data</td>
</tr>
<tr>
<td>KS</td>
<td>*</td>
<td>*</td>
<td>Booster fundraising: Cookie dough, pizza, soda sales; soup suppers (Occasionally sales happen during school day; Does not meet guidelines)</td>
</tr>
<tr>
<td>MS</td>
<td>*</td>
<td>*</td>
<td>Doughnut orders taken during school day but financial transactions and distributions on weekends Extensive booster club sales (does not meet guidelines)</td>
</tr>
<tr>
<td>NY</td>
<td>*</td>
<td>Students sold coffee/tea/hot chocolate before school opened (stopped after Smart Snacks)</td>
<td>Booster club, student government special holiday sales sales after school hours (does not meet guidelines)</td>
</tr>
<tr>
<td>TX</td>
<td>*</td>
<td>Chips sold after school (school club) (No enforcement)</td>
<td>Nonfood fundraising</td>
</tr>
<tr>
<td>VA</td>
<td>Vending machines turned on after school hours (meets guidelines)</td>
<td>Chips, cookies, candy bars sold by marketing students after school hours (does not meet guidelines)</td>
<td>Soda, cookies, candy bars sold for fundraising and at sporting events (does not meet guidelines)</td>
</tr>
</tbody>
</table>

As one FSD from New York described:

We’ve always had to watch. Whether or not everyone will be compliant, there’s always a black market. Oh believe me! There’s always the selling of stuff out of lockers. So, I don’t think those things will ever end. But um, if it’s not sold, we have no jurisdiction over it. So if it’s just given out freely, then um, it has nothing to do with the law.

Her quote highlights the potential for loopholes in items offered in classrooms as rewards or celebrations; these are typically prevalent at the elementary level (Turner et al., 2013) but may
still be observed in high schools. Also, her comment highlights the existence of a “black market” that she is aware of but has difficulty monitoring. Thus, even when clear accountability was understood, the actors experienced challenges with loopholes in the policy. For example, a principal from Texas wanted to create a school environment with no junk food allowed but was frustrated with not being able to enforce what students bring from home:

My biggest problem is the stuff that students bring from home and I’ve gotta find a way to get support on a policy where you know, I don’t want to see anything but water, for instance, in classes. Instead, kids have Powerade sitting on their desk, or they bring a Dr. Pepper from home, and those types of things. I just have to check into what I can do . . . um, to see if I can impact that, and just make the policy because I don’t want that stuff here.

He made an observation here that district and school snack standards have the potential to extend the impact of Smart Snacks by limiting what is brought onto school campus. One response to the problem of oversight was raised by California 2 where the high school focuses fundraising sales to parents. The PE teacher stated that selling to parents was more lucrative and eliminated the need to police sales. Student groups sold wine-tasting evenings, golf tournament events, omelet breakfasts, and other events for parents. As she stated, “if you’re gonna do all that work, it’s better to go to the parents’ pocket than nickel and dime the kids.” This is another potential best practice that emerged from this study.

Lastly, one result of the implementing actors’ strong interactions throughout the district and school was increased opportunities for enforcement and monitoring of the snack policy. While this was only observed in two of the nine cases (California 2 and Texas), these cases offer a potential for best practices related to effective monitoring and enforcement of snack policies. As noted by Gourdet et al. (2014), Texas is one of only seven states (as of January 2013) that adopted laws penalizing noncompliance to snack standards (Texas Public School Nutrition Policy). The state law led the district’s administration to request that the FSD and his department oversee fundraising compliance. As the FSD described:
Any fundraising that has to do with schools always come across my table to make sure we’re in compliance. It’s put in place that way because there’s so many millions of dollars district-wide that the National School Lunch program provides in order to maintain the food service. You’re running 86% free and reduced, that’s millions of dollars for reimbursement. So if you have one little mistake, they can take your reimbursement for a day, they can take it for a month! So a month of reimbursement is $500,000, if not more.

The combination of strong state law and the FSDs’ effective interactions gained buy-in across administration in the district, which led to expansion of their jurisdiction beyond the traditional Child Nutrition department. The FSD was now responsible for monitoring of fundraising and school store venues. In the case of California 1, the FSD also monitored and supplied fundraising items for sale by school groups. As the FSD from California 1 described:

So, what we do is we make those items available to the clubs, and we carry a few cases in our warehouse and they can order it. And they pay us for it, and then my staff will help them cook it, if it’s something that needs to be cooked on-site. Then they sell it for their club fundraisers. There’s a couple of benefits to us. One is, it makes it so they’re more likely to tell us what they’re doing. The second is, is that we know they’re in compliance, and the third one is, we know they’re selling so they can make adjustments to our food prep for the day. And the fourth one is, they see us as a partner, not a hindrance.

As the FSD described, their new partnerships lead to better enforcement and monitoring of the snack policy, as typically other actors are not trained to understand the policy. These examples from California 1 and Texas model ways that enforcement can be conducted by those knowledgeable about the standards. Further, effective interactions between the FSD and district administration leads to increased responsibilities as a result of the FSD being recognized as the champion for snack policy implementation.

Despite the FSDs’ successes in these cases, they also conveyed frustrations about bearing the responsibility of implementation and the challenges that their low power places on continuous enforcement of these policies. This is concordant with concerns acknowledged by the USDA in the Smart Snacks interim rule in their response to the public comments (USDA, 2013). While the FSDs in these exemplary cases were able to leverage power from other sources, this imbalance of power and accountability could result in insurmountable barriers in
more typical school districts. Both California 1 and Texas FSDs offer a solution to this issue: the
district (and not CNS) needs to ultimately be responsible for implementation and ongoing
enforcement. As the FSD from Texas described:

> I think a lot of these policies are left up to Nutrition Services to implement and we don’t
have the power over the school district. So now we need to make the district responsible
for implementing food service policies. Now we’ll say at the end of the year, if there are
negative balances, it’s not the Child Nutrition Services that absorbs that, the general
funds of the school districts absorbs. Kind of like a library fund. If there’s a library fund,
the school has to pay off that library fund. So now they’ve made the school district
responsible, there’s guidelines in place where the district has to act instead of just saying
“I don’t care what you do.” Now there needs to be more oversight, “we need to pay
attention to what you’re doing.”

While this FSD reported that the district needs to be held accountable for enforcement efforts,
both the FSD from California 1 and Texas shared that the effect of their departments gaining
accountability over venues outside of their jurisdiction was an improved reputation and stronger
partnerships district-wide. As the FSD from California 1 described:

> That being said though, I think that because I have been willing to take on
responsibilities for all these mandates, I think it has created a stronger partnership within
the district, and better met the needs of the children.

The Texas FSD expanded on this to report that the result of requiring monitoring on venues
outside of traditional venues is better recognition for his department in the district:

> And that’s what they’re trying to do is get the Child Nutrition Services to work as a part of
the school district. Remember I was kind of making a joke about it; they’re the boot heel
of the school. If you require interactions with other departments, they no longer become
the boot heel, they become an entity.

In both of these cases, the FSDs provided a novel strategy for enforcement and monitoring that
occurred as a result of the improved relationships across the district and in the case of Texas, a
state law penalty. While both FSDs saw benefits of these practices to their department, they still
asserted a need for the ultimate responsibility to be placed on the school district. Taken
together, this is a potential strategy that may prove fruitful if CNS has the capacity to undertake
monitoring of additional venues. Lastly, this should not relieve the district of overall
accountability for compliance to the snack policy.
4. **Implications of findings**

The adapted conceptual framework developed for this multiple case study analysis provides novel understanding of the key actors and dynamic interactions involved in snack policy implementation. In high schools, successful implementation is not a result of a random combination of facilitating factors. Instead, the process is dependent upon the implementing actor activating strong interactions with other actor groups within the district and high school. To accomplish this, implementing actors actively sought and leveraged several sources of power. In this way, these passionate individuals challenge traditional CIT frameworks that understand the local-actor interaction process to be passively influenced by higher contextual factors. Instead, implementing actors demonstrated an active, bidirectional relationship where they relied on and were shaped by these factors.

The state law was a salient source of power leveraged by implementing actors. This finding may provide a possible mechanism linking the strong associations found in previous studies between state law and outcomes at the high school level (Terry-McElrath et al., 2014b). In other words, the current literature is unclear as to the intermediary steps that link strong state law to improved health and school food availability outcomes (Hennessy et al., 2013; Kubik et al., 2013; Taber et al., 2012a; Taber et al., 2012b; Taber et al., 2012c; Terry-McElrath et al., 2014b). This study suggests that a strong state law can be a tool by which the implementing actor gains power to facilitate implementation processes moving forward. At this time, states can capitalize on the Smart Snacks policy and its intention to improve the school food environment by adopting these standards; further, states can ensure the intent of the policy remains intact by limiting fundraising exemptions and enforcing strong time-of-day policies that keep unhealthy foods and beverages off school campus at all times.

As expected, there was not one model for TA that was utilized by all exemplary high schools. Snack policy implementation was facilitated by TA to the extent that it boosted the
implementing actor’s capacity (access to resources) and interaction processes (e.g., communications to other actors). Overall, active and customized TA (including peer-to-peer networks) was valued as a source of capacity (power) for implementing actors. This finding is concordant with case study literature examining school wellness initiatives: actors found active TA to be the most helpful because it responded to their unique problems (Fagen et al., 2013). Further, these findings present an opportunity for states, local public health departments, and school districts to provide customized assistance to schools that are still struggling to implement Smart Snacks. One strategy may involve connecting implementing actors to peer groups to access customized advice. State and local TA entities can also stimulate the interaction processes, further facilitating processes by communicating the intentions of the policy and garnering buy-in from the school community. One avenue with strong potential is improving educational trainings for cafeteria managers, who are currently on the front lines of à la carte policy implementation. Two cases in this study demonstrate that empowering these actors presents opportunities to increase buy-in and enforcement of a healthier school food environment overall.

The findings related to monitoring and compliance are disconcerting, suggesting that even in these exemplary HUSSC: SL cases, actors reported instances of noncompliance with the policy, unclear roles for monitoring, and loopholes that allowed junk foods on school campuses. First, states and school districts can play a role in requiring clear accountability for venues across campus. Second, actors openly discussed that junk food and beverage items sold outside of school hours were abundantly available, which heavily undermined the intention of the snack policy. This is an opportunity for states to adopt stringent laws that address time-of-day limits. Lastly, the issue of who was responsible for implementation was raised by actors in this study and aligned with concerned acknowledged by the USDA (2013) in the Smart Snacks interim rule. The implementing actors in this study who took additional responsibilities for
monitoring described tensions between the additional burden with the positive consequences of expanding their departments’ reputation.

Several of these implications lead to recommendations that can be adopted into policy and practices today, as federal, state, and local entities assist schools to meet the Smart Snacks guidelines. These recommendations are discussed in chapter V. Policy and Practice Recommendations.

B. To Engage or Not to Engage: School Professionals’ Motivations for Involvement with Snack Policy Implementation

1. Background

Snack policy implementation requires engagement from a wide range of actors due to the many venues and jurisdictions within the school. However, it is possible that some actors involved in snack policies have no previous experience in the realm of school food and nutrition. This is important to note, given that their perspectives about the snack policy (and its intended outcomes) may impact their motivation to engage with the implementation process (Bressers, 2009). As mentioned, Bressers posited that an actor will engage (or not) with a policy based on internal motivators (e.g., personal values towards health) and external motivators (e.g., perceived professional duty to follow the law). Since the snack policy was originally mandated in response to adolescent obesity, school professionals’ perspectives with respect to obesity and the role of schools in addressing this topic are important to consider. This section will explore two main questions: (1) what are actors’ perceptions of adolescent obesity and the role of government and schools to respond? and (2) how did the actors’ motivations influence snack policy implementation?
The current study provides unique context from which to examine the construct of motivations. All high schools in the sample are exemplary HUSSC: SL awardees; thus, it is not surprising that key actors had strong personal values toward the work of reforming the school food environment. In addition, some actors had strong external pressures to follow the state law or be advocates for students. This section begins with a description of supportive values that actors have toward snack policy implementation. Beyond these motivators that would be expected to push implementation forward, actors from all cases shared perspectives about snack policy implementation that at first appear contradictory to their engagement with this work. These perspectives are grouped into four interrelated themes. First, perspectives about adolescent obesity are described. Second, the home food environment (rather than schools) was discussed as a key site for intervention; specifically, social inequities in the home food environment were seen as a strong contributor to adolescent obesity. Third, the role of government regulations reflects actors’ attitudes toward the limited contribution of schools. Lastly, nutrition education was cited as an important solution to both improving health behaviors, as well as addressing long-term socioeconomic disparities. With the exception of the implementing actor (FSD) providing specific comments about elements of the snack policy, no notable differences in perceptions were observed across actor types. Each of these themes are closely intertwined in the actors’ discussions but are outlined separately next.

2. **Supportive values toward implementation**

A strong crosscutting theme was the perception of snack policy implementation being “the right thing to do.” This recurring statement is also verbatim from a recent study by Bassler et al. (2013), who reported that school professionals felt “it was the right thing do” during snack policy implementation. This pithy statement is reflective of two ideas; first, it reveals a strong suggestion that current school food environments are not optimal for students’ health and success and thus snack reform suggests an improvement towards these goals. As a TA provider from Illinois explained her interactions with principals: “I don't think I’ve talked to
anyone who didn’t already know the importance of health and education.” Along the same lines, a PE teacher in California 1 described:

If kids have these big bags of Cheetos, I ask them, “What nutritional value is that?” I always ask them, “What kind of car do you want your body to be?” They go, “I want a Porsche.” I go, “With that bag of Cheetos in your hand, you’re a beat-up old Volkswagen.”

A principal from California 1 commented that if one were to just think “logically,” indicating that it made common sense to remove unhealthful food items as a way to impact students’ academic success:

Trying to logically think about this, if you don’t eat well and you’re not well rested, your academics are going to suffer. Any time you have standardized testing, if you sleep well and eat well it does impact because your performance is going to be based on what you put in your body.

As his quote highlights, actors’ support for mandates removing healthy foods stemmed from their personal knowledge that junk foods offered no benefit to students’ health. In the latter example, the impact on academics was a key outcome of interest.

Second, the statement “the right thing to do” evokes a moral (i.e., right or wrong) assessment of the policy’s intentions beyond simply removing junk foods for health. An FSD from California 1 described that his mission is for the “betterment of the children’s lives moving forward.” A cafeteria manager from California 2 also offered her perspective of the purpose of caring for children’s health:

Our future will be brighter if we have the kids understand all this . . . because it’s gonna benefit us all in the end. These kids are gonna be around to run our country and take care of us, so we want them to be healthy so they all can live a long life and enjoy their life.

The actors’ comments reflected an idea that society values the protections and special treatment of children as a means of benefiting the public at large. This finding aligns well with political science theory outlining a rationale for government intervention: children are regarded as a special, vulnerable population that deserve protections due to their cognitive and
developmental limitations as actors in the market (Weimer & Vining, 2005). Kass et al. (2014) discussed the moral implications of such societal values on government intervention in the school food environment. The authors contended that valuing the protection of future generations would mean public institutions (such as schools) are held to higher health standards than they would practice in their personal lives. In other words, even if an individual citizen may not follow a healthy diet in their personal life, they would support more stringent standards for schools because protecting children is ethically warranted. These values are reflected in the wide range of actors who asserted a commitment to protecting children’s health.

3. **Perspectives about adolescent obesity**

A range of perspectives was reported related to adolescent obesity. The majority of actors (65%) responded that they were concerned about adolescent obesity as a problem in society; the rest of the actors were unsure (23%) or did not think it is a problem (12%). In only one case (Mississippi), all actors reported that adolescent obesity was a concern specific to their high school; the FSD and booster club leader also tied their concern to the entire state (e.g., “the state of Mississippi leads the nation, so yes!”). This may be reflective of the state’s and city’s widespread effort to address health initiatives. As these actors described, the high school is located in a city that has a widely publicized (and award-winning) commitment to improving community health.

Of the actors who were less concerned about obesity, one FSD from Kansas provided a common response: “I do think that there is somewhat of an issue with obesity, I think that it’s not as much of an issue as it’s portrayed in the media, at least here.” This finding is consistent with a study by Nollen et al. (2007) who reported that although obesity was recognized as a public health concern, principals and FSDs may not perceive obesity to be an issue of concern in their particular school. Johnston et al. (2013) also reported that high school administrators were less likely (compared to middle school administrators) to report that schools should be involved in addressing childhood obesity; further, administrators were more concerned about nutrition and
physical activity than students’ overweight status. In addition, Johnson et al. found that administrators in high schools were more concerned about physical activity than about students consuming healthier diets.

Adolescent obesity and the discourse about this issue are increasingly predominant in school health initiatives. However, the range of perspectives about obesity also evoked skepticism about the effectiveness of using obesity discourse with school professionals. As one TA provider from Illinois described:

I generally I think from a communications standpoint, always focusing on obesity in schools is starting to get old . . . because obesity is really kind of abstract to some people, they don’t understand BMI. I think sometimes public health in general does itself a disservice to focus so much on BMI that lately, I feel like people are moving away from all the other benefits that these programs are having.

Aligned with school professionals’ personal perspectives and values toward adolescent obesity, only two of nine cases directly mentioned adolescent obesity on their school district website; one was in reference to First Lady Michele Obama’s Let’s Move! campaign. In addition, six of nine had resources and links to government or nonprofit websites related to healthy eating on the districts’ CNS website. Examples of resources include sample healthy recipes and meal ideas and links to the AHG’s Product Calculator. In this way, the district CNS websites of the school districts reflected the personal perceptions of the actors and district-level educational priorities.

4. **Home food environments**

The role of the home food environment was salient throughout discussions about obesity and the potential impacts of snack policies. Half of all actors (51%) and all but one implementing actor (91%) felt that the home food environment should be the focus of obesity prevention due to the larger impact on health behaviors. As an FSD from California 1 stated:

You know I think schools are an easy target. We definitely have a bull’s-eye on our back about what our role is. We have the students for six hours a day. Society and parents have them for the other 18. If you think about it, we’re less than a third of the day the
students are here. But! We’re an easy target because they say that students are getting fat when they’re at school. Again, I think it’s something that’s a misperception.

This finding is consistent with a study by Odum et al. (2013), who reported that elementary school professionals felt parental/home food environments were more influential on health behaviors than schools. In a similar thread, one FSD from California 1 sarcastically expressed her frustration with the expectations placed on schools:

You know what they really need to do at the federal level is make sure that we keep all these children 24 hours a day, so we can make sure that they can get all the things that they need that their parents don’t provide. Because we just don’t have enough hours to make sure that they get everything they need. That’s sort of sarcastic but it’s not. I mean, seriously! It’s like being on a treadmill being in the school.

This perceived importance of the home environment led some actors to take action toward educating parents. One principal from California 2 described his responsibility toward advocating for students’ health by extending the focus outside of his school:

We are advocates for the kids. This is a personal philosophy: I believe parents want the best for their kids. Some parents don’t know what that is, or how to get it, so we try to make that happen. As far as, some people think, “you shouldn’t try to tell me how to parent” so it makes it difficult at times. It’s like, “I’m not telling you what to do, I’m giving you options and the opportunity for your kids to have a different direction with food.”

In this way, actors placed a heavy emphasis on the home food environment and went to varying degrees to intervene by educating parents through cooking classes, nutrition workshops, and/or educational resources on the district website. An emphasis on the home environment permeated throughout the other themes; this is reflected in the IOM (2012) report on obesity prevention strategies.

Amongst their assertions about the home food environments, respondents from all actor groups and cases pointed to socioeconomic etiologies of adolescent obesity. In cases from both rural and urban schools, actors associated poverty with limited dietary choices in home environments that lead to poor health outcomes for students. As an athletic director from a high-FRP eligibility high school in Texas described:

Yes I think it [adolescent obesity] impacts us greatly, a lot of our kids are in poverty and so therefore they don't have the opportunities to make different choices as far as when it
comes to selection of foods. Often times their parents will go with the most economical and generally that’s not the healthiest eating habits. So I think it impacts our school greatly.

Similarly, a booster club leader from a high-FRP high school in Mississippi commented that improvements to the school food environment could mitigate the “worst eating habits” of families in poverty:

I think the research shows that those of poverty, those have the worst eating habits, so if you can kind of you know, deter that, I think it’s a pretty good thing.

Actors from high schools with low-FRP eligibility also echoed these concerns. A health education teacher from Virginia stated:

Well I think it’s a good thing. They may not have that at home. Unfortunately, not everybody’s financial circumstances warrant the fresh stuff or some of the choices that we have.

As these comments suggest, discussions of obesity evoke concerns about the ability of students to make “healthy choices” in their home environments due to limited finances. For students who do not have these opportunities, schools are perceived as responsible to fill that gap. All but one actor spoke of socioeconomic disparities with respect to the students’ family and home environments. Interestingly, only one actor mentioned resource-poor school environments as potentially having an impact on the school food environment and consequently to obesity. A TA provider from California 2 stated that poorer schools have to make “harder choices” with respect to the types of foods that are available. For example, she explained how students consume more fruit and vegetables when cut and prepared (e.g., apple slices compared to whole apples) but a resource-poor school may not be able to afford labor time for a staff person to prepare such items. This is reflected in Johnston and colleagues’ (2013) findings that students were less likely to have salad bars and exposure to healthier items if they attended a middle or high school with a predominantly low socioeconomic student population.

Lastly, despite the questions being focused on snack reform, many actors spoke of the importance of students avoiding hunger. Principals spoke of this goal from the perspective of
adequate nutrition to improve academics (e.g., on standardized testing days), while athletics professionals spoke of it in from the perspective of athletic performance. In Texas, for example, these concerns led to a dinner meal being offered for students. As the athletics director described:

Now we even provide a 5:30–5:45 meal for a lot of kids cuz a lot of our kids come from backgrounds from very little means, so the more we can provide, the better cuz they may go home and not eat. At least they're having the opportunity to eat here.

Similarly, a principal from California 1 asserted that “not eating” definitely impacts students’ ability to concentrate and succeed. Three of seven principals spoke enthusiastically about the SBP as a means to address hunger and improve academics. Such discussions are reminders that school snacks fit into a larger context of the school food environment and the important ways in which this program promotes students’ overall health. The simultaneous goals of addressing both hunger and obesity are a challenge for CNS even in these exemplary cases.

A handful of actors linked education to long-term health, continuing with the identification of distal, socioeconomic impacts on health and obesity. As a cafeteria manager from Texas stated:

We can’t be the solution to it [obesity], you know, the education will be the solution. Your education provides opportunity, hopefully, and then that provides better standard of living.

In this way, perspectives on adolescent obesity, education, and SES were described as closely linked together. A TA provider from Illinois echoed a similar observation:

I think education and health are kind of sister issues, sister needs. So you have a health disparity if you don’t have education, and if you don’t have education you have a health disparity. So there’s definitely a place for health within schools.

5. **Government regulation of school snacks**

Overall, actors asserted that snack policies removing junk foods were a step in a “positive direction.” However, from here, there were frustrations about government boundaries,
as well as the limited role of government due to the importance of the home environment and parental oversight. As a principal from California 1 stated:

That’s a personal issue, the role of government, how much should the government regulate our lives? Can you spank your kids? You can’t spank your kids. Should the school talk to them about sex? Should they not talk to them about sex? How much should they regulate what they eat? I think that’s what it comes down to. I think that we should find a way to work more with parents and have them take more responsibility.

Further, actors’ perceptions about the key role of the home food environments impacted their views about the potential effectiveness of government policies on adolescent obesity. An FSD from Illinois explained:

I think the most difficult aspect of it though is I don't think you’re going to legislate obesity out as a result of dealing with schools because I don't think it’s in schools that they’re getting fat.

Similarly, a principal from New York stated that he would not undo the changes made by the snack policy; however, he felt the government has overregulated and taken power from local school districts:

Don’t get me wrong, I'm not saying it’s the Wild West and you do whatever you want. No, I think there clearly has to be standards and parameters, but you know, so much has been taken out of the hands of local control, that it’s one size fits all.

Authority actors echoed this view in reports about government “overstepping” their roles to mandate school food environments because they cannot legislate nutrition practices in the home environment. Such findings are consistent with LeGreco and Tracy (2009), who commented on school professionals’ criticism of paternalistic policymaking and how school food initiatives need to be more participatory. Respondents from a wide range of sectors submitted similar concerns during the comment period for the Smart Snacks proposed rule (ICF Incorporated, 2013). A principal from Kansas commented that government regulation of the school food environment will have less impact as long as other health environments are not addressed:

They have a hold on us, if you wanna say so, funding-money wise, so they can control one way or another what we do, however, the real impact needs to take place at home. I mean, we can regulate and we and modify what kids get here all we want. When they
walk out the door at 3 p.m., they have access to anything and everything. So until you change the education of parents, societies, and communities, it’s really not gonna matter what we do during our seven hours here at school.

Again, the strong emphasis on the home environment is salient in this comment. Roberts et al. (2009) reported that FSD and principals stated government should not mandate food policies and that the parents should be held responsible for children’s diets. In addition, the authors reported: “although poor nutrition was a significant issue, schools were not responsible for the problems and parents should teach their children healthful eating behaviors” (Roberts et al., 2009, p. 297).

6. **Nutrition education**

Not surprisingly, school professionals pointed to nutrition education as an effective strategy to impact nutrition behaviors and to address social inequities and resulting weight impacts. As actors “in the business of education,” they reported that healthy eating education was a critical component of students’ overall curriculum. This is reflected in district wellness policies nationwide; the nutrition education provision of the local wellness policy has been the strongest of all the provisions (Chriqui et al., 2013). One FSD from Kansas suggested that nutrition education programming was more effective than school meals in making a difference:

> I personally have seen that I think we have affected more change in our student’s lives through the nutrition education grant programs that we have done, than in just feeding them a quote-unquote healthy lunch.

Her statement was supported by a principal from New York who reported that the changes to the school food environment created awareness but, in his opinion, have failed to make lasting behavioral changes:

> I think it brought an awareness because when all of a sudden people are talking about why this, or what’s this, or why did they do this. It brought an awareness, but I think if you asked me, did it change habits? No! So, I don’t see behaviors changing in terms of those choices. For those who drink Power Zero, even at home, they’re maintained on that. I haven’t seen those kinds of behavioral changes.

This finding is concordant with a study examining high school students’ perspectives on
the effectiveness of snack policies in creating behavior changes across health environments. Vecciarelli et al. (2006) found that half of high school students reported that the snack policy led to improved intakes during the school day but only 16% reported that it impacted beverage choices at home. A similar trend was observed for snack choices: 52% said the policy impacted snacks during school but 20% felt it made a difference on home snack intake. Taber et al. (2012c) reported similar findings, indicating that state policies targeting SSBs limited students’ access to these items in school but were not associated with decreased overall consumption (in and out of school). Cradock’s 2011 findings amongst Boston high school students indicated the SSB policy “coincided” with a significant decrease in SSB consumption. More research is needed to determine the extent of impact of school nutrition policies on dietary behaviors in both home and school environments.

7. **Implications of findings**

Bressers (2009) suggested a de-motivational effect that may occur when actors perceive that their “preferred behaviors” toward implementation are beyond their capacity. Based upon the themes presented, it may be inferred that the actors in these cases preferred to target home food environments over schools. However, these cases are exemplary high schools that have already implemented stringent standards, indicating that other forces outweighed this de-motivational effect. In other words, despite actors’ views, they were still motivated to push implementation forward (in the case of the implementing actor) or support and engage with implementation (in the case of the authority/support/TA actors). Several factors are likely responsible for this effect. First, the actors’ personal values reveal a shared and inherent understanding that removing unhealthy foods is beneficial to students and that they are advocates for the students’ health (“the right thing to do”). Second, the moral obligation to consider higher societal values of protecting students’ health also fell in line with this value of doing the right thing. Third, as discussed in the previous section, the hard power of the state
and district policies both exerted pressure on those who did not exhibit personal values for health. Taken together, despite perspectives that have the potential to be de-motivational, the combination of actors’ moral perspectives and external pressures outweighed the potential inertia that each of the actors may have experienced in these nine cases.

Actors’ concerns about social inequities addressed a call by Nanney and Davey (2008) that school food policies and practices have strong potential to equalize the disproportionate burden of population-level health outcomes, including adolescent obesity. The authors saw the federal mandates for school snack policies as an important opportunity to fulfill this goal. School professionals’ perspectives on the role of schools in addressing these social inequities is clear; the field of public health may consider shifting its discourse to focus on messaging that speaks directly to their concerns. In other words, the authors’ findings question whether to continue with obesity rhetoric, as the goal outcome of school nutrition policies remains an effective strategy. More research is needed in this area.

Although the current study represents the perspectives of a small sample of actors from exemplary high schools, the findings are consistent with previous literature and government reports revealing that school professionals have frustrations about the regulation of school food and its contribution to adolescent obesity. Yet, these actors moved forward with implementation despite these perspectives. The current study offers suggestions for high schools that may face similar resistance. First, TA and messaging about the snack policy should focus on the benefits of improving the school food environment for students’ health and academic success broadly, rather than solely on the impact to adolescent obesity. State child nutrition and public health departments are optimally positioned to provide this education and TA. Such messaging appeals to the “it’s the right thing to do” values of the community. Second, not all actors will perceive the former argument to be relevant. Ensuring a strong state law and district policy
provides external pressures and insurance for those who are more likely to be influenced by these motivators.

Lastly, often schools are the only interface for parents to receive nutrition and health education for their families. As school professionals in this study asserted, the home food environment is also critical to students’ health. The local wellness policy took a step in encouraging parental involvement in development and implementation; thus, school professionals should be better supported to realize this goal. States, local governments, and school districts can be supported to create opportunities for schools to engage with families. Actors on the front lines can be provided with funding and personnel to assist with this task, rather than having to provide these additional initiatives on their own unpaid time. As this study demonstrates, TA from state, local health departments, and nonprofit organizations provided funding, resources, and personnel to work toward reaching out to home environments. Such efforts align with school professionals’ perspectives that they are addressing an important target intervention site.

C. **Limitations and Strengths**

This study has several limitations. First, the study examined a total of nine exemplary HUSSC: SL awardees and thus, the findings are not representative of the population of high schools in the United States for several reasons. However, as Miles et al. (2014) asserted, multiple case studies are not meant to be representative of the general population, rather they are generalizable across cases on conceptual grounds. Second, as exemplary HUSSC: SL awardees, the high schools have already achieved stringent snack practices beyond what a typical high school may have. Yet, despite the monetary incentive, there may be many reasons why a school with exemplary practices may not be an HUSSC: SL award recipient. The application is time- and labor-intensive. The award is still relatively new and many schools may not be aware of it. Many schools may have applied but failed to achieve certification for many
reasons. This study did not capture the experience of those high schools that struggled to meet the criteria and failed. During the dissertation proposal presentation, an FNS official requested that my next study capture a sample of failed-attempt schools. Lastly, there are other certification systems involving health standards that may be more visible to school administrators. The HSP by AHG was discussed as one that is now partnered with the HUSSC: SL award. Another example is the Green Ribbon award that is given to schools demonstrating wellness and environmentally friendly practices and is awarded through the Department of Education (US Department of Education, 2014), which may have a direct channel to market to administrators. Competing awards may deter schools from applying for HUSSC: SL. In sum, findings from this study are not intended to be representative of the phenomenon across the nation; instead, they are applied to theory development toward the phenomenon (Yin, 2009).

Second, policy implementation often occurred across a lengthy timeline and for many of the cases, started after the first federal mandate for wellness policies (i.e., 2006–2007). As a result, respondents had varying levels of experience with school snack policy implementation due to staff turnover. In two cases, I obtained interviews with a retired FSD who achieved the HUSSC: SL award, in addition to the current FSD who was implementing Smart Snacks standards at the time; however, this was not possible in every case. In two cases, principals were new to the school and had not been involved during the implementation stages; I was not able to interview the former principals. However, the new principals were able to provide perspectives on how they were engaging with ongoing compliance to previously implemented policies. Taken together, data were collected from school professionals with varying levels of experience of snack policy implementation in the past, as well as from actors who were directed engaged with Smart Snacks implementation at the time. While unavoidable in studying a natural phenomenon in its dynamic setting, it is a limitation of the study.

Third, the study is missing direct observation with snack food practices and environments from the nine high schools. With an ideal budget, each school food environment
would have been documented over a period of time for snack food availability and practices to gain an understanding of how the implementation has unfolded and is continually enforced. In this study, detailed accounts of past and current snack food availability were limited, given the amount of time required; such observational data would have further triangulated and enriched the findings. However, this was not feasible as the study examined nine cases in eight different states. In addition, since the study examined processes and not outcomes in the school food environment, less emphasis was placed on determining an accurate account of snack food availability. To this end, the quality of data reveals truthful accounts of noncompliant practices or potentially controversial personal opinions, indicating that social desirability was likely present but did not skew the interviews heavily. Future studies using multiple case study designs would be stronger by incorporating direct observation in school settings.

Fourth, during data collection, school districts had completed revised National School Lunch guidelines implementation. Several social media campaigns about school meals went viral on Facebook and YouTube and were predominantly framed negatively. In May 2014, there was national attention on the House Appropriations Committee as they introduced waivers to delay implementation of the standards (US House of Representatives, 2014). It is likely that respondents in this study were exposed to these stories and thus were influenced in their perspectives about federal mandates toward school food. This was an unavoidable influence that situates this study within a dynamic political environment; therefore, rather than a true limitation that compromises the findings, it provides a context for which the findings can be interpreted.

Lastly, while this study included diverse actors across each case, it missed other key actor groups, including the target actor (high school students), parents, state TA officials, and Parent Teacher Association members. As the target actor group, student engagement is an important component of implementation; thus, this is a limitation of the current study. Further, Bassler et al. (2013) reported that parental involvement was an important facilitator to snack
policy implementation. Future studies examining snack policy implementation should include these important respondents to examine their involvement and impact on the phenomenon and inform future implementation strategies.

This study also has several strengths. First, it offers policy and practice relevant findings during a dynamic time for school food environment reform in the United States. Throughout study design, execution, and analysis, I received feedback from research experts, government officials at the USDA Food and Nutrition Section, school professionals, and public health practitioners to keep the study grounded in practice and the dynamic policy environment. In the early stages of the study, these activities were more to help direct study design; in later stages, this took the form of peer debriefing, as described next. One venue for this dialogue was local and out-of-state conferences where I engaged with school professional groups and public health practitioners working directly with school districts. I presented preliminary findings and received feedback from those on the front lines. This constant engagement with various sectors of the field was critical to my understanding of how schools were impacted by school snack policies. Further, during the analysis phase, this kind of feedback helped to confirm emerging findings, open new lines of inquiry, and clarify existing themes. In qualitative design, the researcher is considered a study instrument (Patton et al., 2002); thus, these activities contributed to the rigor of the study findings overall. Further, this study can uniquely inform best practices for USDA and other TA providers at all levels.

Second, this study is the one of the few to examine snack policies and include a wide range of stakeholders (e.g., athletics directors, booster club members, cafeteria managers). It is critical to capture the voices of those traditionally not included but now potentially impacted by the Smart Snacks rule. This is important given that previous studies have shown how different actors in the school environment have unique perspectives about policy implementation (Agron et al., 2010) and even respond differently to questions about snack availability on campus (McDonnell et al., 2006). The wide range of actors in this study illustrated the varying roles of
actors involved in snack policy implementation.

Third, within the context of local wellness policies, snack policies are the most controversial and thus may have unique implementation factors but fewer implementation studies examine this component on its own. This study highlights the experience of implementing actors who focus on snack policy implementation, which in many cases was not the same champion for the wellness policy overall. Further, this study reveals potentially controversial perspectives that emerged out of discussions about government interventions affecting school foods. Such issues may be lost in a study that looks more broadly at physical activity/education in addition to food and nutrition policies. A focused look at snack policies allows for the identification of factors specific to this controversial provision and offers targeted insights and recommendations.

Fourth, this study adhered closely to qualitative research methodologies that enhance rigor and trustworthiness from study design through analysis and interpretation. As described, these activities involved constant feedback from expert guidance, coding with an experienced second coder, detailed and ongoing notations in a methodological journal, feedback from an expert in qualitative methods during a doctoral-level qualitative analysis course, and ongoing feedback from dissertation committee members. All of these activities incorporated processes for rigorous qualitative methodology that are often perceived as non-rigorous due to the flexibility and lack of prescribed formulas.

Lastly, this study employed a strong theoretical framework that aligned well with the phenomenon of interest. As discussed, most studies in the current literature do not explicitly outline their conceptual definitions or frameworks. Explicit conceptual and theoretical definitions allow for the building of an evidence base in its ability to compare apples to apples. This study contributes a theory for snack policy implementation that other studies may build upon and inform how Smart Snacks can best be implemented nationwide.
V. OPPORTUNITIES FOR POLICY AND PRACTICE

Snack policy implementation is dependent upon an implementing actor—typically an FSD—who is willing to access and mobilize available sources of power and who can set the right interactions into motion to gain buy-in and change the snack food environment. However, this study examined exemplary high schools that are certified with the HUSSC: SL Award. The question becomes, how can other FSDs in more typical schools across the nation be empowered to set these actions into motion? It is likely that not all FSDs or their constituents will be enthusiastic about school food reform or children’s health. In other schools, FSDs are very dedicated to these goals, yet may lack adequate capacity and support. The following section extends the findings from this study as potential opportunities to support implementing actors and other actors in more typical high schools nationwide. Specifically, recommendations are made to federal, state, and local governments, as well as school districts, with a goal of addressing whether the right sources of power and support are present. These opportunities will be disseminated as written briefs targeted towards policymakers and practitioners at all levels, TA professionals, and school professionals involved with Smart Snacks and HUSSC: SL. This section ends with highlights of recommendations that will inform the briefs.

A. Federal Level Opportunities

The HUSSC: SL award is issued by the USDA and in many cases was a catalyst for FSDs to champion snack policy implementation. Many FSDs described the positive recognition from the award in the midst of negative press from the school meal guidelines implementation. The USDA can continue to provide TA support and funding to state child nutrition entities to expand the HUSSC: SL certification program in their respective states. As the 2014 HUSSC: SL criteria include updates for Smart Snacks, this would be another mechanism with which to encourage implementation of this rule (USDA, 2013). Further, the customized support and TA from state consultants was an important facilitator for the FSDs’ decision to apply and the
schools’ success in achieving the award. At the time of initial recruitment for this study (October 2013), only 203 high schools nationwide had received an award (of any level); this indicates there is room for improvement in recruiting more high schools towards this award.

Second, the challenges of monitoring and compliance are recognized by the USDA and reflected in this study’s findings: even in these exemplary school cases, there was confusion over who is responsible for monitoring, enforcement, and reporting. The Smart Snacks interim rule references the local wellness policy for designating a responsible actor to ensure compliance with the policy (USDA, 2013). Further, the rule notes that the designee is to receive adequate TA to take the lead in “developing performance or compliance standards . . . for all local educational personnel tasked with selling competitive food. . . .” (USDA, 2013, p. 39084).

Finally, the Smart Snacks rule suggests the USDA will release a proposed rule that will address the administrative recordkeeping and compliance monitoring that will need to occur for this rule. The USDA can ensure that this proposed rule is released in a timely manner and strictly ensures a responsible actor will be designated and trained to conduct recordkeeping and monitoring activities. Lastly, the USDA can allocate funds to state departments to provide this training for compliance monitoring.

The USDA is expected to release a final rule for “Professional Standards for State and Local School Nutrition Programs Personnel as required by the Healthy, Hunger-Free Kids Act of 2010.” The proposed rule, released February 2014, requires that minimum professional standards would be set for FSDs, minimum hours of education and training per year for all state agency directors, FSDs, and school nutrition employees. States are to provide at minimum, annual trainings to school nutrition professionals. This study documented that the capacities of the implementing actors were a critical component of snack policy implementation. Further, implementing actors relied on states for TA and interactions that involved and educated all school nutrition professionals, particularly cafeteria managers. The final rule would ensure that
(1) those becoming FSDs would be better equipped to facilitate implementation; and (2) the state will support FSDs in this task by providing trainings and increasing access to resources for all nutrition professionals. Such TA activities from the state level will be vital to policy implementation.

Only one case in this study utilized the local public health department as a TA source. The case in this study illustrates an important opportunity for the field of public health to engage with school health. This is recognized by the federal government (CDC) through projects (e.g., Communities Putting Prevention to Work; Community Transformation Grant) that support public health departments engaging with school districts for policy, systems, and environmental changes (Fagen et al., 2013). In addition, the IOM (2009) asserted the important role of local governments in childhood obesity prevention in the report: Local Government Actions to Prevent Childhood Obesity. However, at this time, the nationwide reach of the partnership remains limited. This is reflected in findings by Slater et al. (2007) who asserted the “missed opportunities” for local health departments to provide services related to healthy eating and physical activity. Stamatakis et al. (2014) listed facilitators and barriers, as well as suggested strategies for local health departments to engage with policy work more broadly in communities. Local health departments can assist with snack policy implementation in two main ways. First, they can offer customized TA because they are staffed with health professionals and public health resources that may assist the implementing actor in communicating changes to the school and local community. As this study documents, such TA can enhance the implementing actors’ capacity, a critical step for this actor who typically is not provided additional resources, personnel, and finances. Second, local health departments can create a culture of health in the community surrounding the school district. The Mississippi and Kansas cases demonstrated that school food changes were better accepted when perceived to be one part of a larger community-wide effort to improve health. As outlined by the IOM (2012), adolescents live, study,
and play in five key settings: schools, physical activity, healthcare/work, food and beverage, and message environments. Schools are one of five critical settings. Local public health departments can be champions for initiatives and communications that alter or create socially constructed norms of health promoting communities.

B. **State Level Opportunities**

This study reveals the critical role of the state in providing both strong state law and effective TA that enhances the power of the implementing actor. First, the federal rule outlines minimum standards that do not preempt state or district-level standards (USDA, 2013). This is a great opportunity for states to capitalize on the Smart Snacks rule and adopt these stringent standards. In addition, states can preserve the intention of the federal law by mandating: (1) no fundraising exemptions; and (2) extending the law past the school day. The exemplary high schools in this study reveal a need for these additional policies; it is highly likely that if exemplary schools demonstrate junk food sales after school hours, the more typical schools would have similar or worse practices. The literature reveals the strong impact of state laws on district policies; therefore, there is a potential for widespread impact with these additional policies. Ultimately, this leads to the potential for a healthier school environment as the policy will be monitored by an entity with the highest technical knowledge.

Second, one study documents that carrot-and-stick measures from the state-level are currently limited; only seven states had “stick”-type penalties for noncompliance (Gourdet et al., 2014). In this study, Mississippi provided a strong financial incentive (“carrot”) for HUSSC: SL certification. For school professionals who perceive snack and wellness policy implementation to be finance/resource-intensive, incentives can be the catalyst for action. In addition, states can issue financial penalties for noncompliance, which can be utilized by implementing actors to appeal to authority actors and school boards for support (via external pressure). Also in this study, the presence of the “stick” in Texas proved to be effective to alert school district
administration to the importance of the CNS department. As the implementing actor explained, the department was no longer the “boot heel” of the school as a result, allowing him to expand his enforcement activities in the district. The stick acts as a source of power for the implementing actor. States should consider addition of carrot-and-stick measures for their state snack laws to create a source of power for implementing actors who are struggling to implement their policies.

Third, the implementing actors also highly valued state TA as an important source of hands-on customized assistance, as well as informational resources and webinars, which were used as communications pieces with other actors. State departments have already provided TA for the Smart Snacks implementation deadline of July 2014 (CDC, 2013); however, the study findings indicate that there is ongoing need for TA. Further, it is likely that states will be responsible for monitoring compliance to Smart Snacks using similar mechanisms to monitoring for school meal guidelines. Thus, states can also provide TA for effective monitoring, compliance and reporting now that school districts may be moving forward with these activities to meet the final rule. Further, the importance of state TA cannot be understated for high schools in states with weak laws, where customized TA was an important and critical facilitator towards implementation. The TA provided the power via enhanced capacity that the state law would have provided.

C. **School District Opportunities**

School districts can also ensure that the snack component of their local wellness policy is updated to reflect the Smart Snacks rule. Similar to state opportunity, examples of exceeding the rule may include extending standards beyond the school day and allowing no exemptions for fundraising. This is particularly critical for school districts without a strong state policy. In this study, implementation occurred prior to Smart Snacks; thus, the implementing actor was able to use the district policy to leverage for power when a strong state law was not available. In
addition, in the Kansas case, the implementing actor and the local wellness champion were hired with wellness activities as part of their job description (as a result of HHFKA). This allocation of staff time demonstrated a priority for wellness in the district and was also recommended by Wood et al. (2010). Reforming the school food environment is important work that improves the potential for students to perform academically and athletically. School districts can show their commitment to this goal by not leaving the work to be completed on a volunteer basis. In reality, it is likely that not all activities may be completed during paid time. However, ensuring that the work of implementation, monitoring, and reporting is conducted during paid time sends a message to the school and community that these are important activities that the district values.

Lastly, the local school district could ensure that training and professional development activities are provided for staff and faculty across campus and at all levels. While most cases in this study received trainings from state departments, several cases also focused trainings for cafeteria and nutrition staff from the district. Actors reported these trainings were highly valued and empowered those actors who are traditionally lower in the hierarchy of the school system. One FSD described their response as being “hungry for data and information.” Such examples of professional investment in staff at all levels facilitated implementation by engaging more actors who are willing to support the many actions necessary for widespread acceptance of the school food reform.
VI. CONCLUSION

In summary, high school snack policy implementation is a phenomenon that depended heavily on the implementing actor (i.e., FSD), who leveraged power from various sources and facilitated interactions between actors to move policy-to-action processes forward. Key sources of power included support from an authority actor (e.g., principal), state and district on-the-books policies, state TA, and the FSDs’ influential character. This study is one of the few in the literature that employed evidence- and expert-informed construct definitions to adapt a conceptual framework to explain snack policy implementation. The framework offers a starting point from which researchers can begin to build an apples-to-apples comparison of the phenomenon of snack policy implementation and its critical factors. Future studies may examine implementation in more typical high schools to revise and build upon the framework.

This study also offers insight into the perspectives of school professionals’ motivations to engage with snack policy implementation. Overwhelmingly, school professionals felt this work was the right thing to do; however, the home environment was reported as the most important and influential factor. It is critical that policymakers and practitioners at the intersection of public health and school wellness understand the varying perspectives and concerns of school professionals in order to most effectively forge these important relationships.

As it is less than a year after the Smart Snacks implementation deadline, it is an opportune time to examine best practices for how these standards can be realized at the local level. This study offers a theoretical contribution, as well as several opportunities for policymakers and practitioners to move implementation efforts forward and reform school snack environments across high schools nationwide.
## APPENDIX A

### TABLE X

**STUDY TIMELINE**

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Exemption to Participate in Research

University of Illinois at Chicago

Office for the Protection of Research Subjects (OPRS)
Office of the Vice Chancellor for Research (MC 672)
203 Administrative Office Building
1737 West Polk Street
Chicago, Illinois 60612-7227

Exemption Granted

October 21, 2013

Yuka Asada, MHSc RD
Community Health Sciences
1747 W. Roosevelt Rd
M/C 275
Chicago, IL 60612
Phone: (312) 401-2171 / Fax: (312) 355-2801

RE: Research Protocol # 2013-1007
“Implementing junk food policies: A multiple case study analysis”

Sponsors: None

Dear Yuka Asada:

Your Claim of Exemption was reviewed on October 19, 2013 and it was determined that your research protocol meets the criteria for exemption as defined in the U. S. Department of Health and Human Services Regulations for the Protection of Human Subjects [(45 CFR 46.101(b)]. You may now begin your research.

Performance Site: UIC
Subject Population: Adult (18+ years) subjects only
Number of Subjects: 30

The specific exemption category under 45 CFR 46.101(b) is:

(2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

You are reminded that investigators whose research involving human subjects is determined to be exempt from the federal regulations for the protection of human subjects still have responsibilities for the ethical conduct of the research under state law and UIC policy. Please be aware of the following UIC policies and responsibilities for investigators:
APPENDIX B (continued)

1. **Amendments** You are responsible for reporting any amendments to your research protocol that may affect the determination of the exemption and may result in your research no longer being eligible for the exemption that has been granted.

2. **Record Keeping** You are responsible for maintaining a copy all research related records in a secure location in the event future verification is necessary, at a minimum these documents include: the research protocol, the claim of exemption application, all questionnaires, survey instruments, interview questions and/or data collection instruments associated with this research protocol, recruiting or advertising materials, any consent forms or information sheets given to subjects, or any other pertinent documents.

3. **Final Report** When you have completed work on your research protocol, you should submit a final report to the Office for Protection of Research Subjects (OPRS).

4. **Information for Human Subjects** UIC Policy requires investigators to provide information about the research protocol to subjects and to obtain their permission prior to their participating in the research. The information about the research protocol should be presented to subjects in writing or orally from a written script. When appropriate, the following information must be provided to all research subjects participating in exempt studies:
   a. The researchers affiliation; UIC, JBVMAC or other institutions,
   b. The purpose of the research,
   c. The extent of the subject’s involvement and an explanation of the procedures to be followed,
   d. Whether the information being collected will be used for any purposes other than the proposed research,
   e. A description of the procedures to protect the privacy of subjects and the confidentiality of the research information and data,
   f. Description of any reasonable foreseeable risks,
   g. Description of anticipated benefit,
   h. A statement that participation is voluntary and subjects can refuse to participate or can stop at any time,
   i. A statement that the researcher is available to answer any questions that the subject may have and which includes the name and phone number of the investigator(s).
   j. A statement that the UIC IRB/OPRS or JBVMAC Patient Advocate Office is available if there are questions about subject’s rights, which includes the appropriate phone numbers.

Please be sure to:
- Use your research protocol number (listed above) on any documents or correspondence with the IRB concerning your research protocol.

We wish you the best as you conduct your research. If you have any questions or need further help, please contact me at (312) 355-2908 or the OPRS office at (312) 996-1711. Please send any correspondence about this protocol to OPRS at 203 AOB, M/C 672.

Sincerely,

Charles W. Hoehne, B.S., C.I.P.
Assistant Director
Office for the Protection of Research Subjects
APPENDIX C

Semi-Structured Interview Guide

Hello, this is Yuka Asada and I'm a doctoral candidate in the School of Public Health at the University of Illinois at Chicago. Thank you for agreeing to participate in this study. As you know, I'm conducting a study about competitive food and beverage policies and the factors that influence implementation. I'm also interested in learning about your efforts and needs moving toward the implementation deadline for Smart Snacks in School. [Confirm that consent form signed and returned OR obtain verbal consent]

I would like to remind you that this study is voluntary and you do not have to participate in this study if you don't want to. Refusing to participate will not affect your employment or standing with [school district name] or the University of Illinois at Chicago. During the interview, if I ask you a question that you would prefer not to answer, we can skip it. Also, you can withdraw from the study at any point. This interview will take about 45 minutes to one hour.

I see from the consent form that you have [agreed/disagreed] to be audio taped? [If agreed] Please feel free to request that I stop the audiotape at any time. [If disagreed] Please note that I will not be audio taping, but I will be taking notes during our interview.

Before we begin, do you have any questions for me about the study in general?

[Respond to questions]

1. Great, please start by telling me about your role as [Role] in the school district. Probe: How long have you been at the district?

As I mentioned, this study is examining how your school has implemented the competitive food and beverage guidelines in the local wellness policy. By competitive food and beverages, I mean all food and beverage items that are sold in vending machines, à la carte, school stores, and fundraisers as well as those items offered in classroom parties.

2. Does [school name] have [ask each]: vending, à la carte, school stores, fundraising? Is there a booster club?
   - Probe nature of each venue: Are venues open/available during school hours? Where are they located? Has the school always had these items available?
   - What are the school’s FRP meal eligibility and participation rates?

3. [School name] won the [award level] award for HealthierUS School Challenge. I’m hoping to learn more about this process.
   - Were you involved in submitting the HealthierUS School application?
   - How did you/your team decide to strive for or submit the application?
   - Who was involved with application?
   - Are other schools in the district awarded? If yes, which ones. If no, why not?
APPENDIX C (continued)

4. Next I’d like to ask you to run through a timeline of how these policies were adopted and came into practice.
   - Probes: When was LWP adopted? Was there a wellness committee (district or school level)? Were you a member of the committee? How often was LWP adopted and revised?
   - What were changes to each venue as a result of a) Wellness Policy and b) HealthierUS Schools

5. Is district open or closed campus?

Power
   1. Next I’d like to ask about key personnel who were involved with the implementation process
   - Were there key people (probe: Local Champions) who really moved the efforts forward? Who made sure the policies were actually implemented?
   - Please explain the level of involvement of (1) teachers/staff; (2) students; (3) parents; (4) Superintendents/School Board/district-level leadership during implementation of competitive food and beverage policies.
   - [If local champion] Has the participation of a Local Champion influenced implementation of the competitive food and beverage policies? How?
   - Who ensures that the policies continue to be enforced?

Interactions
   1. During implementation, how did you communicate the changes that were going to occur to: (1) Staff; (2) Students and families; (3) The community; (4) District-level personnel
   2. What are the most effective ways to communicate the standards with [select appropriate]: (1) Staff; (2) Students and families; (3) The community; (4) District-level personnel
   3. Did you experience any resistance during implementation? If not, why do you think you didn’t? If so, how did you address it? [probe for examples]
   4. Tell me about the role of students in acceptance/resistance to the standards? How did you overcome/facilitate these roles?
   5. Did you implement any other components of the wellness policy and how did those impact the overall acceptance of competitive food changes? Are you involved with nutrition education in the district/schools?

Motivations
   1. The wellness policy mandate was created in response to concerns about childhood and adolescent obesity, how does adolescent obesity impact your school?
   2. What is your opinion about the role of schools in addressing concerns about healthy eating and obesity?
APPENDIX C (continued)

3. Did your district or school’s values toward healthy eating change as a result of the implementation of standards? Or as a result of becoming/applying for HUSSC award?
4. How does the community food environment influence the eating behaviors of students?
5. When you were implementing policies, how do you balance the role of providing options and encouraging students to make healthy choices with providing access to healthy food?

Policy Characteristics
6. What current nutrition policies are working well in your school?
7. In your opinion, are they achieving their stated purpose? [Probe: If not, what’s different]
   Are there any parts of the policy that you have just not been able to implement? Why?

Information/ Technical Assistance

The next section is about any technical assistance or resources you turned to during the implementation process:
8. Please tell me about competitive food and beverage policy implementation resources that you have seen or used in the past
   • Where did you find these resources? (Probe for: Vendors, state technical assistance, Alliance for Healthier Generation, Action For Healthy Kids, vendors, etc)
   • Which resources were useful for you? (probe for: tools, guidance, resources and/or training). Which resources were not useful? What makes it useful?
9. What role did vendors play while you were transitioning to healthier competitive food and beverages?
10. Are you aware of the new federal guidelines for competitive food and beverage standards “Smart Snacks in Schools?” [If yes] How do you feel these standards will impact your purchasing and selling decisions for [insert venue]. [If no, describe them briefly]
11. What support does your school need from your district to help successfully implement the policy? Monitor the policy? Update the policy?
12. Have you received any training for implementation of new competitive food and beverage standards? For monitoring and reporting?
13. Support you would like from the state/district level to help with monitoring and reporting of competitive food and beverage standards?
14. What do you see as barriers to your school/ school district monitoring, and updating your snack food policies?
   • What are the best strategies to overcome these barriers?
   • What is a reasonable time frame for periodically reviewing, assessing, and updating local wellness policies?
APPENDIX C (continued)

Contextual, facilitators/barriers
1. What factors were critical to the implementation of your competitive food and beverage policies?
2. What do you see as barriers to your school/school district monitoring, and updating your snack food policies?
   • What are the best strategies to overcome these barriers?
   • What is a reasonable time frame for periodically reviewing, assessing, and updating local wellness policies?

Future Implementation Activities
1. What do you envision as the next step in your district’s nutrition policy?
2. Who of these people will be involved with monitoring and reporting on implementation of the wellness policy?
3. Does the school have a Farm to School program (or buy local policy?)
4. Is the school involved in Fresh Fruit and Vegetable Program?
5. Does the school have a school garden?

Concluding
3. Is there anything that you’d like to add about anything we’ve talked about today?
4. Do you have any questions for me regarding the study?
5. At this time, I’d like to ask if you have any documents that you would like to share with me that came out of the implementation steps. These documents might include [list documents that were not collected from website: e.g., newsletters, memos from advisory committee meetings, food fundraising advertisements]. Please let me know what is the most convenient way for me to obtain these documents from you. I would also like to remind you that this is also entirely voluntary and you do not have to share any documents with me.

Thank you very much for your time today. Do you have any questions for me? If you think of any questions, please do not hesitate to contact me at any time. Once I have analyzed all of the interviews, I plan to produce reports and articles and will be happy to provide these documents to you, and answer any other questions you might have about the study and/or results at any time.
## APPENDIX D

### TABLE XI
CODING GUIDE

<table>
<thead>
<tr>
<th>OVERALL THEME</th>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>INCLUSION</th>
<th>EXCLUSION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MOTIVATIONS</td>
<td>PERSONAL_VALUE</td>
<td>Personal values of health held by respondent</td>
<td>Descriptions of personal feelings, values, about health [in general]</td>
<td>Values held by other people or collective values</td>
<td>I've always believed that it's important to eat well.</td>
</tr>
<tr>
<td></td>
<td>EXTERNAL_VALUE</td>
<td>External sources of motivation</td>
<td>Descriptions of professional obligation, state laws, or other sources of motivation</td>
<td>Description of personal value</td>
<td>I do what the state law says to do</td>
</tr>
<tr>
<td></td>
<td>IMPORTANCE_HEALTH</td>
<td>The importance [or lack of] related to improving school environments for students, as a means of impacting their health and academics</td>
<td>Importance [or lack of] related to the impact of school environment on students’ health and academics</td>
<td>Other factors that may impact students’ health</td>
<td>The district recognizes that health impacts grades</td>
</tr>
<tr>
<td></td>
<td>PROBLEM_OBESITY</td>
<td>Perceived importance of the problem of childhood obesity and other chronic diseases</td>
<td>Descriptions of importance of chronic disease (e.g., obesity, diabetes)</td>
<td>Descriptions of other child-related illness (e.g., allergies)</td>
<td>Childhood obesity is a major health threat to our children</td>
</tr>
<tr>
<td></td>
<td>MODELING</td>
<td>Discussion of the importance of role modeling</td>
<td>School professionals describing role modeling</td>
<td>Mention of any other types of influences on student behavior</td>
<td>If the leader of the school walks down the hallway drinking soda, what will the kids think??</td>
</tr>
<tr>
<td>INFORMATION</td>
<td>GRADE_LEVEL</td>
<td>Discussion about whether younger and older should have differing standards/food environments</td>
<td>Description of differing or similar expectations for age groups</td>
<td>Descriptions not related to difference in grade levels</td>
<td>High school students should have more choices than ES students.</td>
</tr>
<tr>
<td></td>
<td>TASEEK</td>
<td>How respondents looked for and obtained TA</td>
<td>Where they looked for TA, how they learned about TA</td>
<td>TA not heard of or used</td>
<td>I tried the AFHK website first, since I’ve used their materials before</td>
</tr>
<tr>
<td>OVERALL THEME</td>
<td>CODE</td>
<td>DESCRIPTION</td>
<td>INCLUSION</td>
<td>EXCLUSION</td>
<td>EXAMPLE</td>
</tr>
<tr>
<td>---------------</td>
<td>--------------</td>
<td>--------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>TA_USED</td>
<td>The types of TA used by respondent</td>
<td>Websites, tools, model policies used by respondents</td>
<td>Those TA not used</td>
<td>I used the AFHK WP implementation wheel</td>
</tr>
<tr>
<td></td>
<td>TA_NEEDED</td>
<td>Types of TA that respondent has not found but needs</td>
<td>Descriptions of TA respondent would like</td>
<td>Descriptions of TA respondent would not like</td>
<td>We need help convincing parents that this is a good thing</td>
</tr>
<tr>
<td></td>
<td>TA_EXISTING</td>
<td>Existing technical knowledge held by district or respondent personally</td>
<td>Personnel resources or documents that are already available at district</td>
<td>Those resources not already preexisting</td>
<td>Our Communications Director decided to help us with newsletters to parents</td>
</tr>
<tr>
<td></td>
<td>TA_STATE</td>
<td>Descriptions of state departments as a source of TA</td>
<td>All TA provided by State Dept.</td>
<td>TA provided by all other entities (e.g., local govt., organizations)</td>
<td>The State Dept. was instrumental in our TA model</td>
</tr>
<tr>
<td></td>
<td>TA_PEER_TO_PEER</td>
<td>Peer to peer support and technical assistance</td>
<td>Any type of resource sharing, emotional support sought from peers</td>
<td>TA provided by all other entities</td>
<td>Susan from the nearby school really helped to share her resources with me</td>
</tr>
<tr>
<td></td>
<td>LOCAL_CHAMP</td>
<td>Informal Champion</td>
<td>Role of local champion and identification of this champion</td>
<td>Role of other actors</td>
<td>We couldn't have done it without the nurse who took charge.</td>
</tr>
<tr>
<td></td>
<td>LEADER</td>
<td>Formal Leader</td>
<td>Role of formal leaders (e.g., administrators) and identification of this leader</td>
<td>Role of other actors</td>
<td>That Principal was a major catalyst in implementation efforts</td>
</tr>
</tbody>
</table>
## APPENDIX D (continued)
### CODING GUIDE

<table>
<thead>
<tr>
<th>OVERALL THEME</th>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>INCLUSION</th>
<th>EXCLUSION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LEADER_UNSURE</td>
<td>Formal leader uncertain of policy specifics or</td>
<td>Mention directly from leader that they don’t know OR other R’s discussion of this</td>
<td>Uncertainty of any other R’s</td>
<td>The Principal really doesn’t know what the guidelines look like.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>uninvolved</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>INTERACTIONS</td>
<td>COMMUNICATION_INT</td>
<td>Communication within WP committee actors</td>
<td>Internal communications within WP members</td>
<td>External communications</td>
<td>We had monthly meetings</td>
</tr>
<tr>
<td></td>
<td>COMMUNICATION_EXT</td>
<td>Communication between WP committee actors and target groups (e.g., Students)</td>
<td>External communications with target groups</td>
<td>Internal communications</td>
<td>We put up fliers in the cafeteria to let students know about the changes.</td>
</tr>
<tr>
<td></td>
<td>COOPERATION</td>
<td>How actors worked together to implement policies</td>
<td>Activities or examples of working together</td>
<td>Activities or examples of opposition</td>
<td>The wellness coordinator solicited input from all members on the SHAC</td>
</tr>
<tr>
<td></td>
<td>OPPOSITION</td>
<td>How actors faced resistance to implementation activities</td>
<td>Activities or examples of resistance—both internally and from external parties</td>
<td>Activities or examples of cooperation</td>
<td>The students protested about the changes on a Facebook page.</td>
</tr>
<tr>
<td>POLICY CHARACTERISTICS</td>
<td>COMPATABILITY</td>
<td>CFB policy is compatible with the district’s goals</td>
<td>Degree to which CFB policy addresses [or does not address] any concerns that respondents have about the school health environment</td>
<td>Strengths or weaknesses of the policy</td>
<td>Our district values health a lot and so our policy was quite strong</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Policy_STRENGTHS</td>
<td>Strengths of the CFB policy that have facilitated implementation</td>
<td>Characteristics of WP that made it easier to implement</td>
<td>Weaknesses of the CFB policy</td>
<td>The policy made it very simple to make big changes.</td>
</tr>
</tbody>
</table>

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## OVERALL THEME | CODE | DESCRIPTION | INCLUSION | EXCLUSION | EXAMPLE |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTEXT</td>
<td>CONTEXTUAL</td>
<td>Catch-all for quotations that do not fit in codes below</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>COMMUNITY</td>
<td></td>
<td>Description of the surrounding community’s orientation towards health promotion</td>
<td>Description of the community and how they are supportive of health promotion</td>
<td>Description of other stakeholders</td>
<td>Our city has done a lot to promote healthier living activities.</td>
</tr>
<tr>
<td>STATE_LAW</td>
<td></td>
<td>Impact of state law on implementation of WP</td>
<td>Include how state laws were integrated into stronger standards, how they were considered etc.</td>
<td>Exclude city or other level policies</td>
<td>The state law was implemented so we wanted our wellness policy to reflect that</td>
</tr>
<tr>
<td>PROGRAMS_OTHER</td>
<td></td>
<td>Description of Farm to School or Fresh Fruit and Vegetable Program or other program that influenced implementation of CFBs</td>
<td>Description of other programs that were thought to impact CFB policies</td>
<td>Description of programs that did not impact CFB policies</td>
<td>We do Farm to School and school gardens</td>
</tr>
<tr>
<td>FEDERAL_LAW</td>
<td></td>
<td>Description of federal law and impact on implementation processes</td>
<td>Child Nutrition Act or Healthy, Hunger-free Kids Act</td>
<td>Any other federal mandates</td>
<td>The Supt. hired me because of the HHFKA</td>
</tr>
<tr>
<td>BUDGET_CUTS</td>
<td></td>
<td>Discussion of school receiving budget cuts and impacting WP activities</td>
<td>Discussion of budget cuts</td>
<td>Discussion of other impacts to school</td>
<td>We lost our social worker when the state cut our funding</td>
</tr>
<tr>
<td>Facilitators &amp; Barriers and other</td>
<td>BARRIER_TIME</td>
<td>Time as a barrier to implementation of CFB policy</td>
<td>Description of how implementation activities stalled due to lack of actor’s time</td>
<td>Other barriers</td>
<td>We just didn’t have time to meet as a committee, it kept getting postponed</td>
</tr>
<tr>
<td></td>
<td>IMP_PACE</td>
<td>Description of whether policy was implemented incrementally or all at one time.</td>
<td>Temporal description of implementation pace</td>
<td>Non-temporal descriptions</td>
<td>You try to make gradual changes, everything wasn’t made at one time.</td>
</tr>
<tr>
<td></td>
<td>FUTURE</td>
<td>Plans for future changes to nutrition standards</td>
<td>Include any description of future changes to the nutrition standards.</td>
<td>Exclude any mention of current standards.</td>
<td>We plan to address our fundraising policies this year.</td>
</tr>
<tr>
<td></td>
<td>ENFORCE</td>
<td>Issues pertaining to ongoing enforcement of already implemented policies</td>
<td>The ways practices are maintained/continually enforced</td>
<td>Practices related to direct implementation</td>
<td>We have issues with the VM being on when they aren’t supposed to be</td>
</tr>
<tr>
<td></td>
<td>BARRIER</td>
<td>Any barriers encountered during process of nutrition reform—CATCH ALL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# APPENDIX D (continued)
## CODING GUIDE

<table>
<thead>
<tr>
<th>OVERALL THEME</th>
<th>CODE</th>
<th>DESCRIPTION</th>
<th>INCLUSION</th>
<th>EXCLUSION</th>
<th>EXAMPLE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FACILITATOR</td>
<td>Any facilitators during process of nutrition reform—CATCH ALL</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REVENUES</td>
<td>Descriptions of impacts to revenues as a result of implementation</td>
<td>All description of revenues, profits, losses, gains</td>
<td>Exclude non-fiscal description</td>
<td>We lost 10K per year from ALC sales.</td>
</tr>
<tr>
<td></td>
<td>VM_CONTRACT</td>
<td>Descriptions of exclusive vending or pouring contracts</td>
<td>All descriptions of partnerships/contracts with vending companies</td>
<td>Exclude all other contracts</td>
<td>We’ve had a contract with Pepsi for over 10 years now</td>
</tr>
<tr>
<td></td>
<td>STUDENT_INVOLVEMENT</td>
<td>Description of how students’ input were used during implementation</td>
<td>All description of students</td>
<td>Staff or any other stakeholders</td>
<td>Students asked for more VM placed across campus.</td>
</tr>
<tr>
<td></td>
<td>CAMPUS_CLOSED</td>
<td>Closed-Campus policy</td>
<td>Closed</td>
<td>Open campus policy</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FRP_SCHOOL</td>
<td>Percentage of students eligible for FRP meals in the school—also discussions of FRP participation</td>
<td>Percentage of FRP of school described by respondent</td>
<td>District FRP percentage</td>
<td>Smith High School FRP is 60%</td>
</tr>
<tr>
<td></td>
<td>WELLNESS_COMMITTEE</td>
<td>Discussion of wellness committee at school and district level</td>
<td>Description of wellness committee development, activities, members</td>
<td>Description of other school committees</td>
<td>Our wellness committee was created in 2006</td>
</tr>
<tr>
<td></td>
<td>SNACK_CHANGES</td>
<td>Descriptions of changes made to food environment.</td>
<td>Includes snack and school meal changes together</td>
<td>Exclude changes to other WP components</td>
<td>We got rid of all SSB as part of this new mandate</td>
</tr>
<tr>
<td></td>
<td>SCHOOL_MEALS_ISSUES</td>
<td>Descriptions of school meal issues/problems</td>
<td>Any complaints, concerns, negative feelings about school meals</td>
<td>All other components of the WP</td>
<td>You can’t take salt out of meals, it loses taste. The guideline was too restrictive</td>
</tr>
<tr>
<td></td>
<td>QUOTE_MONEY</td>
<td>All good quotes that I can use in write-ups!</td>
<td>All good quotes</td>
<td>Bad quotes!</td>
<td></td>
</tr>
<tr>
<td></td>
<td>FUNDRAISING</td>
<td>Descriptions of food and nonfood fundraising happening during and after-school hours</td>
<td>All fundraising descriptions</td>
<td>Any other snack food description</td>
<td>We sell candles now instead of chocolate</td>
</tr>
<tr>
<td></td>
<td>INDUSTRY</td>
<td>Descriptions of how the industry is involved in the implementation process</td>
<td>All descriptions involving industry</td>
<td>Other stakeholders</td>
<td>Industry is trying to create 8 oz juice portions.</td>
</tr>
</tbody>
</table>
APPENDIX E
Case Summary—California 1

Highlights of Case:
- Implementing actor focused on building and maintaining district and school-wide partnerships and building reputation of CNS
- High school (and other schools in district) engaged in myriad health promoting activities but limited interest in district-wide coordination of wellness initiatives
- Engaged principal who is supportive of wellness activities

A. The Context

1. Demographics

Table XII
DEMOGRAPHICS OF CALIFORNIA 1

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>30.4%</td>
<td>29</td>
<td>City: Large&lt;sup&gt;1&lt;/sup&gt;</td>
<td>1200</td>
<td>40% Hispanic; 26% Asian</td>
<td>55%; 70% per FSD&lt;sup&gt;2&lt;/sup&gt;</td>
<td>Silver</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

California was an early adopter of stringent snack policies in the school year 2004–2005. The snack policy addresses all food and beverage items available for sale by any entity; the policy was amended in 2006 to say it applied to all items during the school day as of July 1, 2007. The policy also addresses items sold by student organizations for sale during and after school hours (fundraisers), which is less common for states to mandate. The state strength score for snack policies is 33 and ranks this state 3rd amongst the eight states included in this study.

With respect to monitoring for compliance, review, and reporting, the state encourages school districts to review compliance to the policy; the term “encourages” implies that this is not required and thus less likely to occur. The state is also responsible for creating a corrective action plan with the
Superintendent for areas that are found to be noncompliant. Further, as of January 2004, the state required that the school district post nutrition policies in school cafeterias.

1. City: Large is defined by the National Center for Education Statistics as a “Territory inside an urbanized area and inside a principal city with population of 250,000 or more.”
2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.

The district local wellness policy (Comprehensive School Wellness Policy 2006) is brief compared to other districts in California that follow a policy template; further, it does not reference any specific snack policies other than to say the wellness policy will “meet federal, state, and local requirements.” Actors confirmed that the district follows state requirements for snack policy. Despite the district’s focus on individual school initiatives, the high school does not have its own wellness policy. Several actors commented that the district wellness policy is vague and “doesn’t have any teeth” to it because it was intentionally adopted to be nonspecific. The FSD commented that it is on her priority list to revise the policy with the requirement of the Smart Snacks rule in July 2014. The policy does not reflect the more stringent guidelines she has adhered to for HUSSC and now Smart Snacks.

3. **Key actors interviewed**

### TABLE XIII

**TITLES AND DESCRIPTIONS OF ACTORS I**

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
</table>
| Food Service Director (FSD)                                        | • **Implementing actor**  
• Wellness committee co-lead along with Director of Health Services  
• At the district 17 years; 6 years as FSD  
• Oversees 8 district-level cafeteria supervisors, who supervise kitchen managers at each individual school (total of 200 employees)  
• Completed HUSSC application |
| Principal                                                          | • **Authority actor**  
• At school for 5 to 6 years  
• Not involved with HUSSC application |
| Director of Health Services (District level)                       | • **Support actor**  
• Wellness committee co-lead along with FSD  
• 24 years at the school district  
• Not involved with HUSSC application |
| PE Coordinator (District level with previous school level perspective) | • **Support actor**  
• Former high school PE teacher for 16 years  
• Not involved with HUSSC application |
| PE Dept Head (School level)                                        | • **Support actor**  
• 10 years at the school as a PE Teacher  
• Involved with Harvest of the Month Program  
• Not involved with wellness committee or HUSSC application |
| Cafeteria supervisor of high schools (District level)             | • **Support actor**  
• 12 years at the school district  
• Not a member of the wellness committee;  
• Involved with HUSSC application |

The kitchen manager at the high school was reported as being involved “only to the level of following instruction that’s being provided by her supervisor”; thus the cafeteria supervisor was interviewed instead of the kitchen manager at the high school.
APPENDIX E (continued)

4. **Key documents**

   District Comprehensive Wellness Policy (2006)
   Child Nutrition Services website

5. **Wellness committee**

   A district-level wellness committee formed in 2006–2007 at the time of the original local wellness policy adoption; however, the designated wellness champion reports difficulty with maintaining long-term engagement in the committee despite a plethora of wellness activities occurring throughout the district. The high school is situated within a district that is committed to wellness but resists district-wide activities due to competing pressures for academic programming. As the director of health services states:

   There is so much going on in education, so much, and there’s controversy with regard to that. . . And everybody is so impacted that when you then throw an extra program and when they don’t think it’s broken, they’re not ready to jump on board. And so I have not been able to generate the enthusiasm for the wellness committee. . . .

   The FSD agrees that there is limited priority towards a district-wide wellness committee. She is not concerned, however, with the level of commitment to health-related activities because both the district administration and principal support her department’s ability to ensure a healthy food environment for students:

   Our district values what we do and they depend upon us to just do what’s right for the student, so they don’t really buy into all this wellness policy stuff. Does that make sense? They feel we’re already doing a good job, so there’s hesitation to make policy that encompasses the whole district, they would prefer that every principal take responsibility for their own campus, which I appreciate.

   The principal also sees the value of school specific wellness initiatives due to the variation across the district in different needs:

   We have five schools in our district and our communities are all different, because our geographic, demographic differences. I really don't have something like, “they should do this.” And they also have to see what their issues are. They may not have issues with obesity because they have a lot of different resources, like community centers, fields, sports complex and all these things, depends on socioeconomic demographics.
6. **Other nutrition-related programming**
   - **Harvest of the Month.** This program was initiated by the high school principal as a partnership with the local health department. Fruit and vegetable taste testing and educational lessons on local foods and nutrition education. The FSD uses this program to also tie in educational messaging related to MyPlate and other USDA nutrition messages.
   - **Farm to School program.** This program was initiated by FSD and she is currently searching to hire a new person to run the program. The produce harvested from the Farm to School program is used in the National School Lunch Program.
   - **Snack and supper program (CNS).** These services were initiated this year by new principal and school board member who want the school to provide community-center services.

7. **Snack foods and beverages available on campus**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Not available*</td>
<td></td>
</tr>
<tr>
<td>A la carte</td>
<td>Not available*</td>
<td></td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>FSD/cafeteria manager</td>
</tr>
<tr>
<td>Evening events</td>
<td>Available</td>
<td>No one</td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

**TABLE XIV**

<table>
<thead>
<tr>
<th>TABLE XIV</th>
</tr>
</thead>
<tbody>
<tr>
<td>SNACK AVAILABILITY IN CALIFORNIA 1</td>
</tr>
</tbody>
</table>

This high school uniquely has no vending machines because it was built 10 years ago and originally was a middle school. When it converted to a high school, the school never installed vending machines. The à la carte was removed in 2007–2008 by the FSD as a strategy to improve school meal revenues.

Seven schools in the district were awarded the HUSSC awards prior to this high school because the FSD felt it would be easier to apply for the elementary and middle schools before the high school. The FSD reports that she applied for the HUSSC award on her own, with little help from other actors. She first heard about the award from a meeting with the California School Nutrition Association. She did not comment on the financial incentive (or any other incentive) as a motivating factor to the application.
APPENDIX E (continued)

Her proactive approach to implementing stringent policies aligned well with the HUSSC criteria, which she felt gave more direction than the state department. As she describes here:

Sometimes the state gets so behind, that I’ll get the information that two months ago you were supposed to be doing this (laughs). I think it’s in my best interest to say, ok I’m going to go with the strictest guidelines that I know about, and move forward . . .

B. **Brief Chronology**

Figure 6: Brief chronology of California 1.

C. **Findings**

Despite stringent state law in California, the implementing actor relied less on the power of state law, even stating that she had to act more proactively than the state with respect to snack policies. In addition, this case is unique because they were able to achieve HUSSC award success without a strong wellness committee presence or stringent district wellness policy. In other words, despite there being a strong state and district policy, actors did not refer to these as important factors for successful implementation. One actor described the reason for a less-stringent wellness policy and that it allowed the schools to have more flexibility and possibly less accountability. As the district nurse describes, this allows the school to be sensitive to competing pressures:

Well because any time you tighten up the wording or parameters, it’s harder for other people to stay within those parameters. But if you have a loose hold on it, everyone can do it, some of it to some degree. You and I both know, again, it’s ‘where are we gonna fit this? How are we gonna do this?’

The FSD adds that the district policy had no hard power because it was perceived to be coming from the CNS. This problem is discussed further in the enforcement section:

I don’t think they have enough teeth in them, in terms of making it a requirement of the schools. It’s coming through nutrition services, so it comes across as, “well, we don’t have to worry about
APPENDIX E (continued)

that, that’s not going to impact us.” And technically it doesn’t because any audit finding is my
audit finding, not their audit findings.

Despite these challenges, the implementing actor was able to move forward with implementing
the HUSSC criteria. The factors that helped her to move forward are described next and outlined in the
conceptual framework.

1. Conceptual framework

The CIT hypothesizes that policy implementation is a local actor-interaction process
consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and
salient constructs. The arrows in this framework (Figure 7) represent the key interactions and numbers
will correspond with the following text. The framework is hierarchical, starting with federal/state level
factors and flowing downward toward district- and school-level actors. However, as the arrows indicate,
the relationships are often bidirectional, indicating that while the framework goes from top to bottom,
the influences of some factors are shaped by and reshape the process. The target actor group (students)
and parents are in dotted lines as they were discussed by other actors but not directly interviewed for
this study.

2. Sources of implementing actor’s’ power

a. State technical assistance

The FSD and cafeteria supervisor both attended workshops provided by the
State Department of Education related to snacks policy and found that the resources facilitated
implementation. Further, the state trainings introduced them to USDA’s Product Calculator, which both
actors report as being very helpful for their own monitoring, as well as an educational tool when they are
training their staff and other school partners. Despite the FSD’s criticism that state TA can be delayed,
she reported that it has still been an ongoing and important source of her technical knowledge.

b. Technical assistance resources from nonprofit entities

The FSD states that she reached out to a wide range of TA entities in the
nonprofit sector to broaden her access to resources. She frequently goes to their websites to obtain
information. Further, she is currently working on a partnership with AFHK to receive more hands-on TA.

c. Peer-to-peer technical assistance

The FSD noted that peer-to-peer TA was a helpful source of information for her
as she implemented many of these changes. She appreciated the expert speakers at the meetings and
also the opportunities to ask targeted questions to colleagues in her field:

A local chapter of School Nutrition Association...we have directors that go to that every two to
three months, a lot of times we can share best practices with each other. They do a lot in terms
of speakers that provide additional information, or even having one of us directors share what
we’re doing or how we’re doing it, just different new things. Um, the other thing is, is that I feel
like any of my fellow directors in the area, I can email and say, “how are you doing this? How are
you doing that?”
d. **Support of authority actor**

Actors describe the principal as a “very health-conscious person” who is a former body builder with strong support for the snack policy reform. He championed the Harvest of the Month program and enjoys engaging with the students using nutrition education. As the principal describes:

> I worked with them to work with our staff each month, the kids would sample a certain recipe or food, and then they would talk about its origin, they would talk about nutritional value, different ways of preparing it, just to expose our kids to recipes they can take home, to different foods that have good nutritional value, that can be good healthy snacks.

Not only does the principal’s support connect students directly to nutrition education, he is cooperative in allowing the implementing actor to communicate to students and parents about any changes that she is making to the food environment. Thus, the support of the authority actor was a critical factor for implementation.

3. **Interactions facilitated by implementing actor**

a. **Internal partnerships**

The implementing actor’s success can be traced back to her ability to create myriad internal partnerships within the district. As the health education teacher states: “You know, she reads the rules, she does it as a team, it’s not YOU do it . . . it’s WE do it!” Using this approach, the FSD created internal partnerships, including those with administration, and enhanced cooperation within the district by raising the profile of the CNS department:

> I would say one of our strongest attributes is our willingness and ability to create partnerships within our own district. A lot of times people will focus outside for partnerships and forget about the partnerships that you can make within your own district. By creating partnerships within our own district, people start to know who Nutrition Services is. And how we’re willing to help, and what the scope of our responsibilities is. You know, so, all of those pieces have, I think helped us be more successful of the things we’ve been trying to do

The result of the department knowing “who nutrition services is” is that her department is requested to provide monitoring and oversight to other snacks venues. This is described further below under enforcement.

Another critical component of the FSD’s partnerships is with the district administration. She continues this relationship through ongoing communications:

> I always communicate via email with the principals and the office managers because sometimes office managers are the keeper of the info, or help the principal keep track of what’s going on. I provide information at the superintendents’ leadership meeting, which happens approximately monthly.
APPENDIX E (continued)

This ongoing relationship allowed her to leverage their support and source of power when she saw an initiative that she regarded as important. Their support allowed her to more effectively communicate (with their support) to the student body (target actor) and parents also:

I send home information on the back of our menus, so that a menu gets mailed home every month to every household. And on the front of it is the menu and on the back will be a message from me. And a lot of times that’s where I fill in information about what we’re doing or changes, or what’s happening within the schools. And then, we’re working on making sure that our website stays up to date with new information.

b. **Student engagement**
As described, ongoing communications were a key mechanism of interacting with students. In addition, the implementing actor focused on engaging students in more active ways. As the PE teachers observes, the FSD effectively engaged students with snacks changes:

Throughout the year they’ll do taste test, when new things are coming in . . . I know when policies were changing, they did taste test at the different schools, where the kids could taste out of these 3 things what would you get. I know when the chips were changing, they went from regular chip to baked chip to something else. So she does really, really well involving the kids.

4. **Ongoing enforcement and monitoring of snacks policy**

Given the limited venues that snacks are available on campus, it may be assumed that enforcement and monitoring may be easier for this case. The FSD recalled the times when snacks reform created challenges with enforcement:

I would say the soda received the biggest resistance; we had black market soda that kids drunk in the parking lot [laughs] or more kids bringing soda from home.

The main snack venue for this case now is fundraising and it offers a new model for monitoring and enforcement. As discussed, the FSD built partnerships with administration that allows her department (via cafeteria supervisor and manager) to oversee the fundraising efforts, a unique model for Child Nutrition Services. Fundraising groups must fill out paperwork and get approval from the cafeteria manager before selling items during the school day. The USDA Product Calculator is an invaluable resource to ensuring compliance during this step.

The FSD goes above and beyond by creating opportunities for school groups to make money by selling foods that are compliant to the state policy. As the FSD explains, this is advantageous for many reasons:

So, what we do is we make those items available to the clubs, and we carry a few cases in our warehouse and they can order it. And they pay us for it, then my staff will help them cook it, if it’s something that needs to be cooked on site. Then they sell it for their club fundraisers. There’s a couples of benefits to us. One is it makes it so they’re more likely to tell us what they’re doing. The second is, is that we know they’re in compliance, and the third one is, we know they’re selling so they can make adjustments to our food prep for the day. And the fourth one is they see us as a partner, not a hindrance.
APPENDIX E (continued)

In this way, the implementing actor has improved the ability to monitor the school food environment. The cafeteria supervisor observes that their model is advantageous because principals are often the ones charged with monitoring and this is not always effective. She states:

(Sighs) I think our principals are so overwhelmed it’s putting a lot on them to try and do that. . . . it’s a little hard for the principals to take that on. They have so much on their plate, for them to take on that piece also.

As the cafeteria supervisor asserted, despite her best efforts, there are challenges with enforcement because at times, clubs deliberately lie about what they are selling:

Keeping track of it. What we’re having, signing off that it’s acceptable, that they’re really doing that and not trying to do something else. I’ve had that happen, we’re signing off on something and the club is saying, “oh yes we’re selling this and it’s compliant,” and we’ve gone off and found something different.

The health services director pointed out that the size of the district complicates enforcement. She stated it has to be each individual site and it is often not a popular job. She did not oversee any snack items, but she saw the violation of the policy as a case similar to the nonsmoking policy:

When you have a district this size, it has to be individual site basis that someone’s gonna enforce it. An example of that is our nonsmoking policies, which we have, it’s very rigid. . . . But you know, one year we were trying to update that at the board meeting. One of the board members voted against it and I was like, “what’s up with this?” And he said, “well, the problem is, people are violating it. And it’s not being enforced!” And I can tell you without a shadow of a doubt that I’m the enforcer for that. And it’s not a fun role!

Lastly, while the FSD saw the expanding of enforcement to CNS to be a positive model for her department, she still felt there was an imbalance of power when it came to her ability to enforce some of the changes for the wellness policy as a whole. She felt that as long as the policy was perceived as originating from her department, there would not be a district-wide sense of responsibility:

Respondent: Right, who’s mandated to develop that [PE] policy though? Whose audit does it get put on, except for Nutrition Services? And I think that’s the piece that’s missing . . . all these things are supposed to come together, but it’s its left up to Nutrition Services to bring them together, and Nutrition Services typically does not have the authority to do that. So I really think that these wellness policies should be coming through the school board association and telling them to partner with their nutrition services department.

Interviewer: Would all the monitoring come through your department?

Respondent: I think it’s going to have to because when we have our audit they’re going to be looking for that. And again, it comes back on our audit, it’s not the school district.

The FSD reported that the responsibility for implementation, monitoring, and enforcement should occur at the level of the school board and district administration. In the meantime, however, she anticipated creating several educational workshops with the Parent-Teacher Association and club advisers and other
APPENDIX E (continued)

groups who fundraise so that they would be informed about the Smart Snacks regulations. She stated that when the audit happens, they would be expected to take records on PTA activities.

5. **Motivations**

Actors responded that obesity was a problem in society (“I think it impacts every school district in every community”) and their motivations were mainly driven from internal sources, rather than their external pressures. Again, although the state has a stringent law, actors described their commitments to health as a stronger motivator than the on-the-books state policy.

Actors also perceived important links between obesity and socioeconomic inequities observed across families and the student population. As the school PE department head stated:

If you have the demographics we have at school, I don’t think that all kids get the same nutritional, you know, advantages as everyone, as far as eating proper meals. I don’t believe they do. Some kids are not as well off, their opportunity to eat will have not been great.

In addition, the district PE coordinator discussed how the focus should be on parents and home environments:

Well yeah how can it not, it’s in society? It’s here. But you know the hardest thing is, we can teach all we want and teach and show the kids what they need to do but it really starts at home. We have these kids getting out of the car and their parents are obese. We gotta train the parents.

In addition, the FSD stated that there is a heavy focus on students from disadvantaged families but this may neglect another group of students who also may have high risk for poor eating behaviors. She pointed out that schools should focus on educating students from middle class families as well:

My other concern is that we’re always focusing on the sites with high free and reduced population. I think that leaves out a large group of students. Even if a family is considered middle class, they’re probably considered middle class because both parents have to work, they probably both leave early in the morning and arrive late at night, so you have siblings taking care of siblings. And I remember when my girls were young, they’d much rather have an extra 10 minutes of sleep than eat breakfast. So I think that the schools play a crucial role in making sure the students are eating but also giving them knowledge about nutrition and healthy eating. It also impacts their ability to learn.

The principal also stressed his concern to educate parents because of his strong belief in the role of schools as being advocates for students:

If they don’t know anything, we are advocates for the kids. This is a personal philosophy, I believe parents know what the best for their kids. Some parents don’t know what that is, or how to get it, so we try to make that happen. It’s very difficult, we try different parental things. As far as, some people think “you shouldn’t try to tell me how to parent” so it makes it difficult at times. But I think we have to find a way to bridge that gap. That’s it’s like “I’m not telling you what to do, I’m giving you options and the opportunity for your kids to have a different direction with the food, exercise, those sort of things.” It’s just a slippery slope you know.
APPENDIX E (continued)

As the health services director sarcastically stated, the government cannot regulate all that needs to be addressed in order to keep children healthy and the schools are left with too much responsibility:

You know what they really need to do at the federal level is make sure that we keep all these children 24 hours a day, so we can make sure that they can get all the things that they need that their parents don’t provide. Cuz we just don’t have enough hours to make sure that they get everything they need. That’s sort of sarcastic but it’s not. I mean, seriously! It’s like being on a treadmill being in the school.

Despite their strong focus on the importance of parents and the home environment, actors still felt that the work of providing healthier food environments is important to students’ ability to do well in school. In this way, the school had several responsibilities to provide healthy meals but also to impact students’ learning about nutrition. As the FSD noted:

I think that it’s very important, because if children are not eating healthy, they don’t have the same ability to pay attention in school and absorb the lessons learned. So I think that the schools play a crucial role in making sure the students are eating but also giving them knowledge about nutrition and healthy eating. It also impacts their ability to learn.

D. Potential harms of obesity initiatives

A serious concern of two respondents—the district nurse and HE teacher—was about the danger of focusing too heavily on student weights as a result of anti-obesity initiatives. They felt that a lot of harm can be caused to students who may feel stigmatized. As the nurse stated, she was concerned that other nurses so readily weigh students and imply weight-related concerns without considering the consequences:

And I know that there are many school nurses and they weigh kids right and left, they weigh them. . . . I think you make people angry when you say you’re fat and you’re obese.

The PE teacher also echoed aspects of body image sensitivity in her teachings:

So, and making people realize that you may have a really, really skinny person, she may not be obese, but she’s very unhealthy. And you may have a healthier set person, in good shape, they may have a few extra rolls, but they can be in better shape than the skinny person. It’s just teaching too, body stuff.

These respondents discussed at length their concerns with the popular discourse of obesity-prevention efforts that fail to recognize unintended consequences of interventions based on weight alone and potentially stigmatizing students during a sensitive developmental period in their lives.
Figure 7. Adapted conceptual framework—California 1.
APPENDIX F

Case Summary—California2

Highlights of Case:

- Dynamic implementing actor who leveraged several sources of state and district-level power to move into implementation in a short amount of time
- Strong state law and district snack policy
- Wide range of TA entities involved: universities, nonprofits, state and local public health and child nutrition agencies; hands-on TA from nonprofit organization
- Strong focus on school-level (rather than district-wide) wellness and snack policy implementation

A. The Context

1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State obesity %</th>
<th>Locale</th>
<th># of schools in district</th>
<th>Total # Students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>West</td>
<td>30.4%</td>
<td>Suburb:Midsize</td>
<td>12</td>
<td>2531</td>
<td>53% Hispanic</td>
<td>72%</td>
<td>Bronze</td>
</tr>
</tbody>
</table>

2. Highlights of state snack law and district wellness policy

California was an early adopter of fairly stringent snack policies in the school year 2004–2005. The snack policy addressed all food and beverage items available for sale by any entity; the policy was amended in 2006 to say it applied to all items during the school day as of July 1, 2007. The policy also addressed items sold by student organizations for sale during and after school hours (fundraisers), which was less common for states to mandate. The state strength score for snack policies is 33 and ranks this state 3rd amongst the eight states included in this study.

With respect to monitoring for compliance, review, and reporting, the state encourages school districts to review compliance to the policy; the term encourages implies that this is not required and thus less likely to occur. The state is also responsible for creating a corrective action plan with the Superintendent for areas that are found to be noncompliant. Further, as of January 2004, the state
required that the school district post nutrition policies in school cafeterias. While this would not be visible to the public, it is a reporting law required by the state.

The district adopted a board policy for wellness (BP 5030) and administrative regulation (AR 5030) in 2006 and most recently revised the policy in 2013.

1. Suburb: Midsize is defined by the National Center for Education Statistics as a “Territory inside an urbanized area and inside a principal city with population less than 250,000 and greater than or equal to 100,000.”

2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.

These two policies are the template that most Californian school districts adopted. The wellness policy references both state and federal nutrition standards for competitive foods and beverages sold in vending machines, student stores, “or other venues.” Despite the focus on school level wellness initiatives, there is no high school-specific wellness policy. The district policy requires the superintendent to report to the board about the contents of the policy, as well as periodically measure and make available the reports of an assessment on compliance to the policy. One of the indicators used to measure is listed as “Number of sales of non-nutritious foods and beverages in fundraisers or other venues outside of the district’s meal programs.”

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (FSD)</td>
<td>• Implementing actor</td>
</tr>
<tr>
<td></td>
<td>• Started at district 4 years ago</td>
</tr>
<tr>
<td></td>
<td>• Completed the HUSSC application</td>
</tr>
<tr>
<td>Vice Principal</td>
<td>• Authority actor</td>
</tr>
<tr>
<td></td>
<td>• Leader for high school wellness committee</td>
</tr>
<tr>
<td></td>
<td>• Involved in AHG grant</td>
</tr>
<tr>
<td>Coordinator of Athletics (district level)</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• At the district for 2 years</td>
</tr>
<tr>
<td></td>
<td>• Involved on wellness committee peripherally</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td>Cafeteria Manager</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• At the high school for 25 years</td>
</tr>
<tr>
<td></td>
<td>• Not involved in wellness committee</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td>AHG TA provider</td>
<td>• TA provider</td>
</tr>
<tr>
<td></td>
<td>• Worked with the high school to provide TA for a Kaiser Permanente/AHG grant (4-year program for schools with &gt;50% FRP eligibility)</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
</tbody>
</table>

**TABLE XVI**

**TITLE4 AND DESCRIPTION OF ACTORS**
4. **Key documents**

District wellness policy BP 5030 and AR 5030 (First adopted June 7, 2006)
Child Nutrition Services Overview website

5. **Wellness committee**

This case has both district- and school-level wellness committees. The school-level committees were developed two years ago through a partnership with AHG and are described as “lessons learned” for the FSD. He reported that district-wide wellness efforts are too broad and do not respond well to the specific needs of each school, considering the diverse demographic and geographic differences between schools within the district:

You know, I think one of the approaches that USDA is making that is wrong is the one-size-fits-all, because as I said earlier with my school sites, you know one of the mistakes I made and I learned from, was a district wellness committee doesn’t have the ability to look at what each school site could benefit best from. . . . So I learned by mistakes, by trying to push that agenda of district wellness committee, and I learned that that doesn’t work. You have to drill down and get down to those communities, because the demographics are different, the socioeconomic is different, in each one of my school sites. I think the same needs to be thought about as far as how do you implement at school districts.

6. **Other nutrition-related programming**

- **Alliance for Healthier Generation/Kaiser Permanente grant.** This grant was awarded for school-level local wellness policy implementation. The program focuses on TA for school-specific activities that help to implement the school level policy.
- **Farm to School Program.** Two-year grant (100,000 over a 2-year period) for district-level implementation. The FSD is just beginning with this program.
APPENDIX F (continued)

7. Snack food and beverage venues available

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>FSD/cafeteria manager/principal</td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD/cafeteria manager</td>
</tr>
<tr>
<td>School Stores</td>
<td>Available</td>
<td>FSD</td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>FSD (during school day)</td>
</tr>
<tr>
<td>Concession/ evening events</td>
<td>Available</td>
<td>(Athletics/Booster - No standards enforced)</td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. The HealthierUS Schools Challenge award

The HUSSC award was a positive reward in response to negative public relations experienced after the school meal guideline reform. The award validated the district and provided recognition for the department after the negative press. As the FSD described:

And I wanted the staff and the community to recognize these strides and the work that we had done. So, you know, the reputation of the school district somewhat of a negative reception in the community, of the meals that were served and the quality of food that was being served in the food service department. So I really felt that this was a great way to get the word out to the community and draw some recognition for the efforts that the staff had been making.

B. Brief Chronology

Figure 8. Brief chronology of California 2.
C. Findings

This case highlights a very strong Implementing Actor with charisma and passion. The case demonstrates how this actor performed above and beyond his job description as a FSD and the difference that he made in creating outstanding reforms to the school nutrition environment. It is notable that both the state snack policies and the culture of health in California is favorable for such changes; however, implementation was not without its challenges. The implementing actor in this case demonstrated an extraordinary talent for harnessing his influential powers and capitalizing on available resources to overcome barriers to snack policy implementation.

The FSD started at the district four years ago and experienced the negative press of the school meal guidelines implementation. Despite these challenges, he moved forward with great momentum to tackle the snack policy implementation.

1. Conceptual Framework

The CIT hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 9) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. Implementing actors’ power sources
   a. Implementing actor’s soft power

   The implementing actor was a central and critical role in this case. Other actors, such as the TA provider, described his reputation for being “infectious” and a “real powerhouse” who goes above and beyond his role as an FSD. As he described himself:

   How can I say, I’m very high energy, I have a lot of ideas, and a lot of concepts, and I truly believe and have a passion for what we do here . . . for what the job of this department is.

   The athletics director described the FSD as the main catalyst for snack policy implementation. When asked what factors have made the district successful, he replied:

   I think it’s [FSD] to be honest with you because he’s so well liked, and he’s willing to listen to others and when they present him with things that are you know, do-able, he’s willing to adapt and um, put those things in motion and stuff.

   According to the FSD, the highly controversial adoption of the closed campus policy led to an almost quadrupling of the school meal sales, consequently increasing revenues for the department, which resulted in a new form of power for the department. Initially, resistance came from stores in the
community that projected lost revenues as a result of the students not able to leave campus to spend money. The FSD addressed this issue:

So there was a big campaign that there’s no way that Child Nutrition could meet the needs of students, the campus needed to be open so students could get meals and adequately fed. I assured the cabinet members and the board members that we could meet the needs of the students, and so, over the summer, my first summer here, the resolution was passed to close the campus. So we put several systems in place and opened 19 points of service during lunch periods so that there are plenty of places for students to go.

The FSD attributed his success to the willingness of the school community to support him. And despite the fact that he attributed the local wellness policy for helping him to move his efforts forward, he did not do the work because of the policy:

I’m not looking at a rule book and saying, “gosh darn it, I gotta install those changes” I don’t look at it that way, I look at it as “this is the right thing to do, and the right time to do it” . . . so it’s a lot easier for me to support those things. In turn, I think it’s a lot easier for the community to support those things when they see that this entire team and this entire district, for the most part, support those changes.

b. **State technical assistance**

The strong role of state TA in the form of customized assistance is described by the FSD. The state offers a Child Nutrition consultant assigned to each school district for district-specific trouble-shooting; the implementing actor described this resource to be critical to his ability to implement the policy because it was customized to his specific needs.

c. **State and district policy**

One of the sources of power that the FSD leaned on was the district wellness policy that was adopted in 2006–2007. While the FSD did not directly mention the state law, the district policy came out of the state policy. The on-the-books policy provided legitimacy (and a source of hard power) for the foundation of his work:

You know, when I got here I really stressed the fact that the current wellness policy that was in place, and asked that we go by those guidelines. The wellness policy that was in place stated that unhealthy options would not be available to students. So, they hadn’t followed through on that completely, so I garnered support from the administrative team, and we had those [vending machines] removed.

In this way, the local wellness policy was only partially implemented until a passionate FSD came to the district and held the district accountable. Not only did he completely remove all unhealthy vending, he implemented a closed campus policy, and took control of school stores and fundraising efforts in high school.
APPENDIX F (continued)

d. Technical assistance from nonprofit organizations

The FSD reached out to a wide range of organizations to seek resources and technical assistance: AHG, Kaiser Permanente, Fresh Approach, and Center for Science and Eco-literacy. Kaiser Permanente funds a four year program with AHG to assist with local wellness policy implementation. The high school is designated a TA person from AHG who provides workshops for the schools, helps the school to create wellness plan, and does site visits/calls monthly for four years to continue to follow up on the work. This TA provides significant resources for the implementing actor, resources that in many ways compensate for the lack of time, personnel, and funding that are not provided for snack policy implementation by the school. Again, the FSD was the key figure to make these partnerships and garner their additional resources towards the school district:

What I recognized early on, there’s no way that I’m gonna be able to do this myself, so I was able to employ and make some partnerships and collaborations within these larger groups and help bring their resources and stimulate that change within the school district as a whole.

3. Interactions facilitated by implementing actor

The FSD worked hard to stimulate interactions in the district. He attributed his success to the “willingness and desire for change that the community, the students, and the staff have.” As he described his team:

By no means, it’s a one-man operation. Often times, I’m the mad scientist behind the curtain, you know, pushing the buttons and pulling the levers, but the team is the one that really helps drive the program and make it go.

A major consequence of the FSD’s success in using the hard power of the policy was that he gained the respect and support of district administration as the implementing actor. As a result, the FSD was granted wider jurisdiction over snacks venues (more discussed below). The support from district administration also gave FSD power to use towards the school level administration in implementation decisions. The FSD described:

We have an extremely collaborative administration team. So we work with the principal, the vice principal, as far as site based. And with the district administrative team at the central office. So we kind of collaborate with both entities.

For example, the fundraising is typically monitored by the principal in most high schools, but in this school the cafeteria manager (who is the lowest power position) and the FSD together enforced this area that is generally problematic for schools. However, this wasn’t an easy win for the Child Nutrition department, as he described:

Respondent: You know, food is a very easy target. And very easy way to generate funds, as opposed to having to sell wrapping paper. That’s a lot tougher to sell than a chocolate bar. So having to make those changes and move away from the easy way out of selling food, things like that, there were definitely some challenges for the staff to take on.

Interviewer: And how did you address the resistance?
APPENDIX F (continued)

Respondent: Just with being steadfast in my methods. And being an advocate for listening to what their needs were. And what their concerns were. You know, being a team player. Trying to understand what their needs and their challenges were. But also being cognizant that the mission that we have is for the betterment of the children’s lives moving forward.

In this way, the FSD encountered resistance but appealed to the other actors’ needs; ultimately, his personal values towards improving children’s lives are what motivated his efforts.

a. **Implementing actor as a source of technical assistance**

The FSD orchestrated two types of key interactions in order to facilitate implementation. First, all actors cited the FSD as their main source of information and resources. In this way, the FSD took the technical knowledge he gained from myriad sources and then was the conduit for communication and information about snack policies. Of these interactions, the information sharing with the cafeteria manager’s training was a critical component, as she is responsible for monitoring the school’s fundraising. She spoke very highly of the FSD’s approach to providing TA in a way that empowered her department, rather than just filtering down the information:

> Which is good because he’s stretching us, challenge us and get us to learn more and see what we can do. It makes you feel good that someone could do that.

The cafeteria manager in this case was empowered to be a player in enforcement and monitoring of snack policies. Her power was clearly obtained from the FSD’s efforts to engage and educate her. She stated that the secret to keeping students happy was substitution of products:

> You know the kids, you really think they’re gonna miss it when it’s gone, but if you supply something else for them, they will go after that. Kids are weird; they go for the colors I think. We put ‘em in the machines, we have all the colors. They don’t complain.

b. **Student engagement and nutrition promotion**

The FSD also worked with the Student Nutrition Advisory Committee our times per year to conduct taste-testing sessions, take students on tours of the kitchen, administer satisfaction surveys, and take time to speak to students directly. He also worked with a Youth Nutrition Advisory Committee on nutrition education programs using Center for Ecoliteracy tools; with this group, he created small nutrition related projects to assist with the implementation of school meal and snack policy initiatives.

To the broader student body, communications in the form of nutrition promotion was key, and important that the message that was directed from many different areas, according to the athletics director:

> And I think the message you know, as long as they keep hearing it, I believe they have a chance. And so, they’re hearing it from faculty, they’re hearing it from administrators, they’re hearing it . . . they’re seeing it from Child Nutrition Services, the way that we’re presenting food and what it is that we give them the options for, is I think certainly helping them become aware of you know, their choices when they choose to eat.
APPENDIX F (continued)

The FSD also described the importance of consistent nutrition promotions:

They’re bombarded with healthy messages around the campus. So you know, it’s like the race car that drives around the track that has Budweiser or Snickers bars on it, I’m using that type of mentality of reinforcing that, and continuing to push that messages over and over again.

In this way, all actors saw the importance of continued nutrition communications across campus, and exerted a lot of effort to ensure this happened. The FSD noted that through the Child Nutrition website and other electronic communication techniques, he directed messaging to the community as a whole. Again, one of his goals at the present moment is to “really change the perception of what the department does.”

4. **Ongoing enforcement and monitoring of the snacks policy**

Through the hard work of the FSD in creating partnerships with administration, he garnered power to widen his area of jurisdiction related to snack venues. With the exception of outside groups holding fundraisers four times per year, the Child Nutrition Department has jurisdiction over the remainder of the year. As the FSD explained:

So the schools they of course you know have clubs that want to have fundraisers, so they used to use the student store to sell unhealthier items. So what we did was we collaborated with the administration and we operate the student store, where they sell um, we sell water, and a fruit juice and our à la carte items, baked chips, and then we also sell their t-shirts or logo’d items for school support items. So for them . . . they could still raise funds by selling those items, that weren’t food items. I wanted to take away their ability to put food in there, so that they couldn’t offer unhealthy choices.

This is a unique model that developed directly as a result of the FSD’s pro-active approach to providing a healthier food environment for students. His strategy reduced potential for errors in monitoring the snack policy that may be made by other actors with less technical knowledge. In addition, for the vending machines, the cafeteria manager ordered the items from a specific, standardized list that she may not deviate from. This list is determined by the FSD at the district and aligns all schools with the policy, reducing opportunities for error. As the cafeteria manager described:

He gives us a list, the rules from the state, a list of items, of what we can purchase. We can’t go out on our own. We know exactly what we have to buy and it’s given to us. That’s how we order our stuff, exactly from the list he supplied us. Which helps us, because then you know, everything is the same everywhere. We’re following the right procedures and having the same items at our sites.

The FSD reported that he did not anticipate problems with monitoring and reporting on compliance because they already had a streamlined process for their review every three years (previously every five years). Both the FSD and coordinator of athletics also noted that booster and concession food sales also occurred during sporting events and after school hours but he was not in involved with these sales. He noted that the leadership club also sold fundraising items outside of school hours; however, neither he nor the FSD was aware of (or did not choose to share about) the specifics of any other sales. In this way, despite the FSD’s expanded jurisdiction, there were still sales that occurred
APPENDIX F (continued)

after school hours that did not follow snacks standards and had the potential to undermine the school environment. These are currently not monitored by any actor at the school district.

5. Motivations

Actors felt that childhood obesity was a concern at their school and in society. However, respondents stated that childhood obesity was not caused by school food but by modern lifestyles and cultures of convenience and busy lives.

The athletics director reported that nutrition education for students and parents is important:

You know, as a parent, as an administrator, I’m terribly concerned about child obesity. And I think it’s something that our responsibility you know, obviously educating parents as well, is probably just as equally important. Because same with their education, if the parents aren’t supportive in working with the teachers, then you know, if you don’t have their support then it doesn’t work, and so, you know umm, but it doesn’t mean that we don’t continue to do our job, and I believe that is part of our job.

Similarly, the cafeteria manager stressed that the importance of providing education for the health of children:

I think whatever we can do to help these kids grow up and be healthy and you know, show them what this can do to their bodies if they don’t. . . . Our future will be brighter if we have the kids understand all this . . . because it’s gonna benefit us all in the end. These kids are gonna be around to run our country and take care of us, so we want them to be healthy so they all can live a long life and enjoy.

The FSD stated strongly that this nutrition education work was very important, but simultaneously that schools are unfairly targeted to be the panacea for childhood obesity issue. In this way, he simultaneously felt very dedicated to this work, but also frustrated about the amount of responsibility placed on schools in general to respond to addressing the problem:

You know I think school is an easy target. We definitely have a bulls eye on our back about what our role is. We have the students for six hours a day. Society and parents have them for the other 18. So we play—if you think about it—we’re less than a third of the day the students are here. BUT we’re an easy target because they say that students are getting fat when they’re at school. Again, I think it’s something that a misperception.

The role of socioeconomic factors was identified by the FSD as part of the role of schools in promoting healthy eating:

Because the demographics of a low free and reduced price district are very, very different than here. In those districts, parents have resources often times, to help their children make those different choices, healthier choices. Sometimes, often times in a district such as mine, parents are challenged with just putting food on the table. There isn’t those resources available. So, it’s gonna be much different.
While the importance of restricting junk foods was mentioned, the coordinator of athletics was more concerned about the students’ ability to avoid hunger, due to the demographics of the student population. In this way, the role of schools was to address the needs of students to ensure their success. As he stated:

I think when you look at the parents in our district you know, our district has such a high volume of students who have needs you know, either meet or exceed the free reduced lunch meals, I should say, umm, they see the value of what his program provides their children, you know. I mean, for some kids, he’s feeding them three times a day and it’s three meals that they wouldn’t get otherwise. So it’s a very valuable necessity for kids in our district to have success.

Finally, the TA provider agreed that the resources at the school impact the “harder choices” that the FSD must make; for example, she stated that students would eat more fruits and vegetables if they were cut and prepared. However, a resource poor school may not be able to afford the labor time for a kitchen staff to cut and prepare these items daily. In this way, she identified that through her work across many schools, food environments are different in resource poor schools.
Figure 9. Adapted conceptual framework—California 2.
APPENDIX G
Case Summary—Illinois

Highlights of Case:

- Weak state law and state technical assistance
- Strong district snack policy and district technical assistance (TA) entity
- “Carrot” of HUSSC status on school performance records; administrators are incentivized to
  achieve award
- Powerful food service director who works closely with state department and district TA entity
- Strong city support for school health initiatives

A. The Context

1. Demographics

![TABLE XVIII]

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th># of schools in district</th>
<th>Locale (school level)</th>
<th>Total # students in high school</th>
<th>Ethnicity (school level)</th>
<th>FRP % (school level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>33.6</td>
<td>642</td>
<td>City: Large¹</td>
<td>1042</td>
<td>35% Black; 43% Hispanic</td>
<td>89%²</td>
<td>Gold</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

State laws pertaining to snack policies were adopted for implementation in the 2006–2007 school year, however, the law applies only to K–8 grades. As of the 2013–2014 school year, there are no state laws applicable to high schools. The state strength score for snack policies is 12 and ranks this state 6th amongst the eight states included in this study.

The school district adopted a wellness policy in 2010 that, according to the TA provider, “didn’t have any teeth to it.” The district then received a grant that allowed for the expansion of an existing department to focus on local wellness policy TA. During this time, the growing TA entity consulted a range of experts and resources to develop and adopt a more stringent snack and wellness policy. Concurrently, mayoral and citywide support for public health initiatives grew, which led to creation of a unique position in the school district that is accountable to the public health department.
APPENDIX G (continued)

1. City: Large is defined by the National Center for Education Statistics as a “Territory inside an urbanized area and inside a principal city with population of 250,000 or more.”
2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.

Thus, the high school follows the districts’ local wellness and healthy snack policy, which was most recently adopted in 2012 and is one of the most stringent policies in the state (more discussed in findings). As far as monitoring and reporting, the district TA entity charges the principal to elect a school employee to serve as the wellness champion and lead the School Wellness Team; the team is expected to ensure the school is compliant with the policy and other federal policies (this will include Smart Snacks in Schools). The principal is designated to report quarterly to the local school council on compliance to the policy. Lastly, the snacks policy designates the district TA entity with responsible to create ongoing reporting and monitoring for support and oversight. Periodic evaluations and reports on district-wide and school compliance to the snacks policy are to be included in their activities. By January 2015, a review and assessment of the snacks policy and its effectiveness is to be reported with proposed policy revisions.

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (FSD)</td>
<td>• Implementing actor&lt;br&gt; • Oversees Nutrition Support Services/Child Nutrition programs&lt;br&gt; • Works closely with district-level TA entity&lt;br&gt; • In this role for 2 years (In Food Service for 14 years)&lt;br&gt; • Not involved with HUSSC application</td>
</tr>
<tr>
<td>Athletics Coordinator/Dean of Students</td>
<td>• Wellness champion&lt;br&gt; • In this role for 4 years; 2 years as the wellness champion&lt;br&gt; • Not involved with HUSSC application (Retired coach was responsible for submitting application)</td>
</tr>
<tr>
<td>Cafeteria Manager</td>
<td>• Support actor&lt;br&gt; • Peripherally involved with school level wellness committee&lt;br&gt; • Not involved with HUSSC application</td>
</tr>
<tr>
<td>School Wellness Specialist for high schools (District TA entity)</td>
<td>• TA actor&lt;br&gt; • In this role for almost 1 year</td>
</tr>
<tr>
<td>School Health Specialist (general) (District TA entity)</td>
<td>• TA actor&lt;br&gt; • In this role for 2 years&lt;br&gt; • Former high school teacher</td>
</tr>
</tbody>
</table>

Principal declined. (Principal highly supportive of wellness efforts and designated the athletics coordinator as the wellness champion). Unable to locate retired coach who submitted the HUSSC application.
APPENDIX G (continued)

4. **Key documents**
   
   District wellness policy (2012)
   District resources for wellness plan
   District TA resources—website

5. **Wellness committee**
   
   The high school created a School Wellness Team as directed by the district TA entity. The team is composed of the local wellness champion (designated by the principal), teachers, counselors, and the cafeteria manager occasionally participates, according to respondents. The local wellness champion attended the TA workshops provided by the district, reviewed the website, and then tackled the resources to see which areas they could implement little by little over time. The committee also enlisted a group of high school students to provide feedback on the activities, which the local champion attributes to facilitated implementation.

6. **Other nutrition-related programming**
   
   - The local wellness champion created a healthy eating competition amongst the high school football team as one initiative out of the wellness committee. They involved all of the sports teams (since he is the athletics director) and provided prizes. The champion recalls that this activity was very successful as students reported becoming more aware of their eating practices both in and outside of school.

7. **Snack food and beverages available**

   ─явление

   **TABLE XX**
   **SNACK AVAILABILITY IN ILLINOIS CASE**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>Cafeteria Manager/FSD</td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>Principal</td>
</tr>
<tr>
<td>Concession/ evening events (through Booster Club)</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Campus status</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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APPENDIX G (continued)

8. **The HealthierUS Schools Challenge award**

The current wellness champion was not involved with the HUSSC application; however, he communicated a lot of pride in the award and a commitment to ongoing enforcement:

You have to stay consistent and always be determined that . . . you know, to be the best of the best you have to put the work in. That’s what we do at [high school name], you just don’t stop because of we won it. You continue it. We want to be the best, from administration to the custodians, that’s what we do here, for our students.

B. **Brief Chronology**

![Figure 10. Brief chronology of Illinois case.](image)

C. **Findings**

This case is unique because of the strong role of the district snack policy and district-level TA entity that fills the role of the state department in many of the other cases. The FSD described the uniqueness of the district-level TA approach based on her past experiences working as a wellness champion in other districts:

Even in my former capacity, I was often the champion and the one supporting the principals and parents and students in trying to get the work done, but seldom was there a counterpart or someone else that could help with the work. Often times it fell to the athletic director or you know, if we were talking about individual school buildings it fell to the PE teacher or something like that, very seldom did they ever have a real group who was solely focused on just supporting these efforts within schools.

The FSD explained that the traditional approach in her previous experience was often “slow and painful” because the majority of effort is focused on garnering buy-in from different stakeholders. She felt that the success of the district TA entity was due to their close connection and buy-in with district
APPENDIX G (continued)

administration (hard power). In this way, the close link to a source of power gave momentum to the implementation of the snack policy.

The wellness champion was designated by the high school principal and focused on implementing activities from the wellness policies, with guidance and support from the district TA entity. As far as the snack policies, the cafeteria manager enforced the à la carte items that were determined by the FSD, and the fundraising was monitored by the principal. The FSD was in charge with implementing the snack policy by unifying vending machine purchasing options for the district and by training her staff to enforce the policy.

1. **Conceptual framework**

   The Contextual Interaction Theory hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 11) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. **Sources of implementing actors’ power**

   a. **Technical assistance from various partnerships**

      The FSD reached out to a wide range of entities for TA, including the state department, universities, nonprofit organizations. She stated that this TA was critical to her access to resources (capacity) and allowed her to execute her plans for implementation.

   b. **Peer-to-peer technical assistance**

      These relationships expanded the FSD’s capacity (power) for executing changes to the school snacks availability (removing vending machines from high schools) and setting up one vending contractor for the whole district. These were formidable tasks for such a large school district and she relied on a wide range of sources to assist with her capacity. The FSD shared her reliance on peer-to-peer TA, which she found helpful because they offered answers to her specific processes.

      I would say that a lot of peer conversations. So, I talk a lot to my peers in [different cities]. Those are probably the ones that I talk to most. I have kind of a monthly call with them and we share some of our challenges and best practices. We visit each other’s schools and districts in order to see what you’re doing, what I’m doing, how can I incorporate some of what you’re doing, how can you incorporate what I’m doing.

   c. **District snack policy and partnership with district technical assistance entity**

      The district created and adopted the snack policy in 2012 in collaboration with the TA entity. This stringent policy served as the on-the-books hard power for the FSD when initiating
APPENDIX G (continued)

changes to snack foods. The FSD was able to lean upon this stringent policy as a source of hard power. In addition, she relied upon the district TA entity to provide access to resources to the high school toward implementation activities. Their focused attention on provision of TA directly contributed to her ability to focus on larger district-wide policy implementation that would directly impact the high school.

d. **Aramark technical assistance entity**

The FSD worked closely with Aramark who, she stated, offered help to facilitate adherence to the new Smart Snacks guidelines and obtain compliant products at a good price. Their facilitation was a source of power for FSD as she didn’t have to “struggle” to procure compliant products. She described the benefits of working with a large company:

Some of my colleagues are saying “how did you get that?” and I will say, “well I was able to work with Aramark and they decided to buy it for all of their schools, they’ve got 500 school districts across the country and that got the price low enough for me to be able to afford it.” So there’s a dynamic to having a food service company around the procurement piece that makes the standards a little easier to follow. Versus struggling by myself to figure all of that out.

3. **Interactions facilitated by implementing actor/technical assistance entity**

a. **Communications to students/parents**

The implementing actor received assistance from her department and district TA entity to provide the necessary communications related to snack policy implementation. The FSD made efforts to communicate to students with the goal of garnering buy-in:

So if you’re not engaging the students and it’s something that’s happening to them but not with them, then you’ve lost them to begin with. If it’s something that you’re doing with them, and they’re informing the process, I think that they buy in and they will participate.

Further, she also made efforts to communicate to parents (via parent-teacher councils) to educate them about the changes to the school food environment; currently, as they prepare for Smart Snacks implementation, she reports:

Right now, my communications and marketing team are doing a lot of work with our parent-teacher councils, and going out and giving presentations during those meetings to parents to say, “here’s what’s going on, here’s how you can help and support. Here’s where we’re taking this, and if you did a little more at home, it might make it less difficult for your child.” So we’re working on some of those as well.

b. **Communications through wellness champion to students**

The TA entity communicates to students and parents through school wellness champions and principals on an ongoing basis through a website, regular emails, regular workshops, and webinars. The wellness champion admitted to not being able to attend TA workshops as frequently as they were offered (due to budget cuts he has assumed many additional responsibilities at the high school). However, he was “not disconnected” because he kept up with the emails sent from the TA entity, and the wellness committee still meets bi-monthly. The wellness champion reported that the TA
APPENDIX G (continued)

received from the district is critical but their role was more to support the school rather than to mandate certain activities:

They are more of the support. They give the ideas of what other schools doing. And that’s great because you don’t want to have an office demand you to do stuff, especially with eating healthy. Everyone’s on the same page about being healthy. But there are so many factors and ways to get students to be healthy.

This champion is unique in that he has officially been designated this role by the district TA office, while most champions from other cases were not assigned the role so formally.

The champion took the communications from the TA entity and engaged students at the high school to become involved in nutrition education challenges for the whole school body. He felt providing nutrition education informally was key to the acceptance of the snack policy changes (e.g., removing unhealthy vending machines altogether). In this way, the district entity educated the wellness champion, who then reached out to students.

4. **Ongoing enforcement and monitoring of snacks policy**

The TA entity provided both carrot-and-stick enforcement activities that acted directly on the high school’s primary decision-maker, the principal. Schools awarded the HUSSC award receive recognition on the school progress report, which is an incentive (carrot) for the principal. In addition, there is considerable effort to make the initiatives “turn-key” for principals and school-level staff; a wide range of resource sharing and user-friendly website with resources are provided by the TA entity. As the FSD stated:

So, we like to talk a lot about making things turn-key for principals of the schools so that it’s an easy lift. . . . Because otherwise it becomes something else for the principal to do, it’s something else, it gets on the list, right? And we know what happens to things on the list.

While the district TA school wellness specialists did not comment on noncompliance specific to this high school, they noted that it was common in the district:

A big area for us, because, especially for high school, fundraising during lunch, which is a violation of the federal law, you’re not supposed to be selling food in competition with the school lunch or breakfast. High schools violate that all the time, and we’ve really hit a lot of um, barriers with that. I don’t really know why. Maybe they never knew that they’re not supposed to do that, or they forgot that they’re not supposed to do that.

Related to this issue, this district is also unique in the power that the FSD has over the principals to pull rank related to snack policy implementation. The FSD described several cases where she became aware of noncompliance with snack food policies (via the cafeteria managers or school wellness specialists visiting schools); however, this was not specific to this particular high school. In general, she advised her cafeteria managers to report any cases to her and not involve themselves in the enforcement aspect: “Don’t fight the battle, send me the note. And I’ll just make a visit.” In this way, the accountability for enforcement lies at the district level and the cafeteria manager is simply responsible for reporting it up the chain. As the FSD noted:
Sometimes you go in and sit down and do it with ‘em [principals]. What’s in it for you, the students, the district to follow this process and do it appropriately, this is what we should be doing for the right reasons, and most people fall in line. You’re either dangling the carrot or you’re crackin’ the whip (laughs). One of those two usually works for most.

The wellness champion noted that he did not observe any issues with noncompliance because there was a rigorous process for ensuring fundraising items meets school guidelines. This was first approved by the principal:

We gotta get that approved. Everything gotta get approved. I respect that . . . when it comes down to fundraising you propose it to the principal and it’s not just a yes, there’s gotta be some signatures involved.

He also noted that the cafeteria manager effectively monitored the à la carte items and thus, he was not directly involved with monitoring and enforcement of any food or beverage items on campus.

5. Motivations

Respondents had mixed perspectives related to adolescent obesity. The FSD adamantly asserted that schools are not responsible for obesity and that school mandates are limited in their effectiveness because the home environment should be the target:

I think the most difficult aspect of it though is I don’t think you’re going to legislate obesity out as a result of dealing with schools because I don’t think it’s schools that they’re getting fat . . . .

When we see the greatest disparities in changes with students, it’s over the summer when they haven’t had access to a school. So, what that says to me is that the work that has to be done has to be pushed into the home, not just at schools, and I think that a lot of food service professionals feel we’re doing everything that we can to do it right, and that there’s just no real credit for all of that work, and the care and the intent that we have to get it right for our students.

All actors asserted a strong dedication to the latter statement of “get it right for the students,” many because of the high needs of the population (majority qualify for free and reduced price meals). The athletics director also expressed a strong dedication to “doing what’s right for the students.” It is these internal values and responsibilities that motivated these actors to work hard toward improving the school food environment despite their reservations about obesity discourse and the role of schools. The FSD also noted that there is a role that schools should play in health education:

Absolutely, I think that we’re an educational institution and our job is to educate the complete child and I think that includes giving them life skills in math, how to do a check book, and we teach them in you know, social studies how to, from a historical perspective, how to interact with people, and how not to repeat bad behaviors, and I think that it’s important that we also teach health and nutrition and how to have a healthy body, how to have a healthy lifestyle, and that food and fitness need to be a part of those. And I think that it should be taught as early as possible and as often as possible.

References to the demographics of this high school were frequent in discussing why health should be a priority for schools. As one school health specialist noted the importance of such efforts:
APPENDIX G (continued)

I think it’s essential. It really plays, of course, it addresses health disparities. I think education and health are kind of sister issues, sister needs. So you have a health disparity if you don’t have education, and if you don’t have education you have a health disparity. So there’s definitely a place for health within school.

The FSD felt the Smart Snacks rule was “in the right direction” but she stated there are flaws to the policy, mainly that it is overly restrictive:

And I think that the level of regulation has made it almost impossible to balance the world between enjoying and being able to eat healthy. I should be able to eat both healthy and enjoy, and so some of the products that are out there, some of the things that are available, or quite frankly, things that are in our price range, have no flavor (laughs).

The school health specialist expressed more strongly that the school has a strong role to play in combating the harmful food environment in the community:

So, again this is where we can have some control...promoting health and wellness, that’s eight hours...they’re getting access to a healthy lifestyle, right? Yeah. And you know, the community foods or whatever, because they’re not healthy, what do I want to say? It’s almost like battling against that, right?

D. Other Themes Encountered

1. **Unintended consequences of federal snacks mandate**
   The FSD observed that an unintended consequence of school meals standards is creating a relationship with food that is not ideal:
   
   Then I think that anytime you MANDATE what has to be on the plate, you’ve now created a love-hate relationship with food, so I think there’s some unintended consequence of the standards. I want fruit and vegetables, fresh and local, and the best possible that we can put in front of the students, but the moment I say you HAVE TO put it on the plate, you make that food the enemy. . . . I think the unintended consequence is that we’ve vilified the very thing we’re trying to celebrate. Unintentionally, but we have.

2. **Limitations of relying on obesity discourse**
   The school health specialist noted challenges with using obesity discourse due to its abstract nature as a concept. She asserted that this it is not advantageous for public health to continue to use obesity as a main outcome:

   I generally I think from a communications standpoint, always focusing on obesity in schools is starting to get old . . . but really focusing on all the other benefits of our programs really just . . . because obesity is really kind of abstract to some people, they don’t understand BMI . . . I think sometimes public health in general does itself a disservice to focus so much on BMI that lately, I feel like people are moving away from all the other benefits that these programs are having.
3. **Challenges with food and beverage manufacturers**

The FSD reflected on her recent experiences with the food industry and new formulations of products to meet the nutrition guidelines. She explained the problematic nature of the fast implementation expectation of the school meal and snack standards:

What I see a lot of is industry wants to re-formulate retail products that already exist, and then say “now this is for school food.” But they’re not selling that product as a retail product, they’ve improved the product to fit these healthier guidelines but their retail products, they don’t look like that. So, an example would be like Froot Loops. Kelloggs has reformulated the Froot Loop to meet the guidelines, it’s now whole grain, it’s got 2/3 less sugar, it’s fewer dyes . . . and blah blah to make this a “healthier” version of a Froot Loop. But my struggle is, if that’s not a Froot Loop, because what you’re selling in the store is a Froot Loop but you want me to tell kids this is a Froot Loop, how do I then say to a parent or child, you can eat this Froot Loop but you can’t eat that Froot Loop? So I would rather not service those items and just talk about real food. Just food. Food is food is food. So, whole wheat bread is whole wheat bread is whole wheat bread. There’s no special whole wheat bread.
Figure 11. Adapted conceptual framework—Illinois case.
APPENDIX H
Case Summary—Iowa

Highlights of Case:

- Strong state snack law
- Strong relationships between all actors as a result of the small school and remote town location
- CNS experienced significant challenges after the school meals guidelines implementation and this set the context for snacks policy implementation
- Strong emphasis on the home environment as a key site of intervention for obesity

A. The Context

1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # Students in high school</th>
<th>Ethnicity (School)</th>
<th>FRP % (School)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>Midwest</td>
<td>28.3</td>
<td>7</td>
<td>Town: Remote</td>
<td>431</td>
<td>94% White</td>
<td>18%; 47% per FSD</td>
<td>Gold Award of Distinction</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

The Iowa Healthy Kids Act of 2008 required that food and beverages sold in à la carte, vending, and regulated fundraising during the school day (defined as the time between the first and last bell) meet specific competitive food and beverage guidelines as of July 1, 2010. A comparison of HKA 2008 for competitive foods and beverages and the USDA Smart Snacks in Schools reveals that the

1. Town: Remote is defined by the National Center for Education Statistics as a “Territory inside an urban cluster that is more than 35 miles from an urbanized area.”
2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.
APPENDIX H (continued)

standards have minimal differences. The state strength score for snack policies is 28 and ranks 4th amongst the eight states included in this study.

The HKA explicitly (and uniquely) designates enforcement actors on the website: “à la carte (FSD), vending machines/school stores/fundraising (school administrator, business manager, other designee.” The act also charges the Bureau of Nutrition, Health, and Transportation Services Nutrition Consultants with reviewing compliance of à la carte standards. The remaining venues are to be enforced by the School Improvement process and site visits. It is unclear how frequently these compliance checks are to be conducted.

The district snack standards follows the state law and also references federal law. The district wellness policy also explicitly requires the district food service professional to be accountable for the nutrition components of the wellness policy; this person is to check for compliance and report using the School Wellness Policy Checklist. The district’s curriculum director is charged with compiling all the components of the checklist and reporting the results to the staff, administration, school board, wellness policy team, and other stakeholders.

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
</table>
| Food Service Director (FSD) | • Implementing actor and district wellness coordinator  
                             • Works closely with FCS teacher  
                             • Completed HUSSC application |
| Principal               | • Authority actor  
                             • Involved on wellness committee for 2.5 years  
                             • Not involved with HUSSC application |
| Athletics Director (middle and high school) | • Describes himself as “auxiliary member” of wellness committee  
                                           • Coaches several sports teams  
                                           • Not involved with HUSSC application |
| Family & Consumer Science (FCS) Teacher | • Support actor and co-lead on wellness committee  
                                           • At the high school for 11 years  
                                           • Supported FSD in applying for HUSSC award  
                                           • Oversees W. K. Kellogg Food and Fitness program at school |
| Cafeteria Manager       | • Support actor  
                             • Not part of the wellness committee, not involved in HUSSC; position of low power in the district: “I just go ahead and do what I’m told.” |
APPENDIX H (continued)

4. **Key documents**
   - District wellness policy—Wellness Policy
   - District brochure on IA HKA
   - IA HKA website
   - Letters sent from CNS to parents
   - District CNS website

5. **Wellness committee**

   The district-level wellness committee was first convened to develop the wellness policy in 2006–2007 and is headed by the FSD and FCS teacher with other members having mostly peripheral involvement (as reported by all respondents). According to the FCS teacher, the committee has gone through ups and downs but the key players remain her and the FSD. The wellness policy activities overlap with the W. K. Kellogg program (described below).

6. **Other nutrition-related programming**

   All actors in this case spoke enthusiasm about additional programs that helped to enforce the changes in school meal and snack policy implementation. The strong emphasis on nutrition education is apparent through their active involvement with these programs.

   - Nutrition and Health Mentor program: High school students pair with younger students to teach nutrition and health topics.
   - W. K. Kellogg Food and Fitness initiative: The school received in one of nine awards given to communities across the country to support cross-sector initiatives to improve access to healthy, locally grown foods and increased physical activity environments. The program supports nutrition education and goal setting initiatives.
   - Farm to School Program: The FSD reports challenges with local food procurement; this program is viewed as important tool in nutrition education and facilitates students’ acceptance of fruit and vegetables.
APPENDIX H (continued)

7. **Snack food and beverage venues available**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>FSD/principal</td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD/cafeteria manager</td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>principal</td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Concession/ evening events</td>
<td>Available after-school</td>
<td></td>
</tr>
<tr>
<td>Open/Closed Campus</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. **The HealthierUS Schools Challenge award**

The FSD completed the HUSSC award application and reports that receiving the HUSSC award was positive recognition in the aftermath of school meal guidelines implementation, which she describes was a very stressful time for her and the CNS department. The FSD reports that school meal guidelines implementation set up an environment in which snack policy implementation was less of a challenge. As she recalls her experience with the school meals standards:

> There was no support for us personally, we were treated badly, we were like the enemy trying to force these kids to do things, the teachers, the parents, the kids . . . we felt very abused . . . and it helped to get the Healthier US School Challenge, it helped to get patted on the back, to make these kids realize, the teachers, and the parents realize that the kids weren’t getting tortured [laugh].

**B. Brief Chronology**

Figure 12. Brief chronology of Iowa case.
C. **Findings**

This case offers an examination of a high school following a stringent state policy and also one that experienced less difficulty with snack policy implementation due the context of National School Lunch nutrition standards implementation a year earlier.

As a small high school with only 431 students, the implementing actor had close support from the FCS teacher and the FCS teacher’s husband, the athletics director. In addition, the FSD reported that the district never had a robust à la carte program, never had school stores, and relied very little on fundraising; thus, the snack policy implementation was considered much less challenging than the school meal guidelines implementation. The actors all reported their success was attributable to teamwork and the cooperation of the entire school, which was facilitated by the small size of the high school and the strong relationships with one another. In fact, the FSD repeatedly commented that she “can’t imagine a larger school, it would be really hard to implement all this in a larger school,” given the larger number of stakeholders.

1. **Conceptual framework**

   The CIT hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (FIGURE 13) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. **Sources of implementing actors’ power**

   a. **State law**

   The Iowa Healthy Kids Act of 2008 was both the impetus for school meal and snack policy implementation activities and a source of power for the implementing actor. The FSD and FCS teacher used the state law as a source of power to engage the school wellness committee and administrative actor toward implementation. As the FSD reflected, the state law also allowed the school to stay abreast of upcoming federal changes:

   Well, it was the law put in place by Iowa, and I don’t know if the federal government had put that in place too, but Iowa seems to always be a step ahead of the federal government, and so it seemed like we always knew what was going on.

   b. **Federal and state technical assistance**

   The implementing actor described two key sources of TA that were critical to facilitating her implementation process. A state food service consultant provided hands-on, tailored TA. The consultant also encouraged the FSD to apply for the HUSSC award, which is how she began to
implement the snack policy. In addition, the FSD also noted that more recently, she used the USDA Product Calculator as her main resource for technical knowledge.

c. **Supportive authority actor**

The close interactions between the implementing actor and the authority actor are a strong facilitator for this case. As the principal stated, his knowledge of the actual snack policy was minimal and he relied on the FSD for her expertise. When asked about the catalyst for the district snack policy, he replied:

> Oh boy, probably a better question for [FSD]. I’m not quite sure. I think it coincided with having state mandates that we had to have a wellness policy in place. I think we were ahead of the curve in getting this established. But yeah the wellness committee and [FSD], [FSD] will know better.

In turn, the FSD recalled a time during the school meal guidelines implementation when she felt resistance from teachers and the students; the principal communicated from the top-down that these policies were to receive school-wide support. The FSD reflected on how the principal played a critical role:

> He stood up for me when we were going through issues with other teachers. He basically went into a meeting and laid the law down, that this process needs some work from all administration and they need to jump on board. He was really good at that kind of thing.

As a result, when it came to snack policy implementation, the FSD reported that the principal had already created an environment of acceptance for the school food reform. Therefore, the principal’s role was primarily in using his power-over authority rather than technical knowledge of the policy itself. At the time of interview (November 2013) the principal not heard of Smart Snacks in Schools, nor was he aware of the specifics of the IA HKA or the HUSSC award. In addition, he was not a big part of the wellness committee and activities. Despite all of this, he was able to be—according to FSD—a strong and critical role in implementation.

3. **Interactions facilitated by the implementing actor**

a. **Communications to target actor groups**

All actors reported that both internal and external communications surrounding snack policy implementation activities was a critical factor. As the FSD stated, all students especially needed to learn about the policy and be informed in order to “own” the changes also:

> Respondent: It was thrown on them as much as it was on us . . . they need to understand why the changes are taking places.

> Interviewer: How did you do this?

> Respondent: Um, well the kids at the beginning I went into some of the classes, and gave presentations and answered a lot of questions, because we found that the kids need to own it
too, they need to be part of it, but if they have some issues with it, let them talk it out with us and they seem to understand it better.

In addition, all actors reported communicating with parents via newsletters and the website to educate them about policy changes.

b. **Nutrition education to enhance target actor’s information**

In addition to effective communications specific to the policy, actors reported that nutrition education enhanced the target actor’s acceptance of the changes to the food environment. All respondents spoke highly of the mentoring program, where high school students teach elementary school students about the importance of nutrition and healthy eating. In order for high school students to teach, they must learn the curriculum well themselves. In relation to this program, the athletics director and principal discussed the importance of older students modeling healthy behaviors for younger students as a way to bring awareness about health to the students. The athletics director described the program:

I think it’s made a much more informed student body, not only through the kids learning, the kids that are doing the teaching are learning too, the vegetable and fruit options that they’re teaching elementary school kids about . . . It’s hard to really judge if our obesity problems have gone down. I don’t think we have an inordinate amount of obese kids, probably average to better than average as far as the health of our kids. I’d like to believe that some of that is through the education the last few years.

4. **Ongoing enforcement and monitoring of the snacks policy**

When asked who is responsible for enforcing the varying venues, most actors responded that they were all equally overseeing the different areas. This may be reflective of the small school size. However, all but one actor discussed the difficulty of enforcing the snack policy, especially with respect to items available in fundraising. The FCS teacher had caught students selling Cinnamon Rolls during school hours for fundraising purposes and stated the problematic nature of this area. While the principal was responsible for monitoring fundraising items, the FCS teacher shared that often administration was not enforcing the policy:

No, we’re having trouble with the enforcement. It’s supposed to be administration, but some things, sometimes things fall through the cracks.

The athletics director reported being less concerned about compliance to the snack policy, despite it not being perfect:

Oh, I don’t think we get 100% compliance. We still get kids sneaking things in the school. But that’s hard to completely handle it . . . not that we’re a big school but we’re always going to have noncompliance, but for the most part I think that we get good compliance from all involved.

The FSD revealed that the presence of the strong state and district policy was very important toward her ability to enforce the policies and suggested her power was increased when she referenced that is it “against the law”:
APPENDIX H (continued)

We still fight the battle of, you know, snacks being brought in that aren’t approved . . . It’s not everybody buying into it . . . . I walked down and into a classroom and they were all shoving brownies into their mouths, and I was like, “what is this?” because it’s policy for one thing, and it’s against the law for another thing! [laughs]

This quote illustrates how she relied upon the law for ongoing enforcement of the standards, and not just in the initial implementation phase. The district’s wellness policy addresses foods brought in for snacks, rewards or celebrations to limiting to pre-packaged foods, whole fruits and vegetables, and suggests the use of items provided by the district. Further, the district has a stringent policy for food as reward or punishment.

5. **Motivations**

The implementing actor had close support from the FCS teacher who helped to co-lead the wellness committee. Both actors noted that their strong personal values toward creating a healthy environment for students as the “right thing to do.” As stated by the FCS teacher:

Respondent: [sigh] It takes some people who really strongly feel it’s a good thing and are willing to give their own time. Both [FSD] and I have both given a lot of free hours, we don’t get paid to do this, it’s all on volunteer time, we put a lot of summer hours, a lot of after-school hours in. It’s gonna take people, and plus we’ve been pushed back, and we’ve hit resistance, and you just gotta keep going. It’s not easy.

Interviewer: What has kept you motivated?

Respondent: That’s a good question! [laughing] You know we just feel that it’s the right thing to do. I think both of us are from that generation where we feel it’s the right thing to do.

Thus, the strong personal motivations of the implementing actor, combined with strong support from the wellness committee’s other co-lead helped to facilitate implementation activities, especially during times of resistance. Initially, there was a group of teachers who resisted the changes to the snack environment because of their ideological values about government regulation. In this case, the FSD communicated with this group to change their perceptions of the mandate. In this way, the implementing actor facilitated acceptance of the policy by changing their perceptions:

It’s terrible. They didn’t want the government telling them what to do. And I can understand that, I don’t really like the government telling me what to do, but in my view, it wasn’t that, it’s showing these kids healthy guidelines.

This example shows the implementing actor’s ability to interact with other actors and educate them on the policy may be viewed in a unique case from other government intervention. This is partly her personal values towards health and partly her technical knowledge of nutrition and the intended outcomes of this policy.
APPENDIX H (continued)

With respect to perceptions about obesity, most respondents had lukewarm concerns about adolescent obesity and no actors felt the high school viewed overweight or obesity rates to be concerning at the particular school. The FCS teacher stated:

Respondent: [sigh]. To some degree. A few years ago we did. We worked some numbers out. I think in the high school, I can’t recall exactly, we were at maybe 20% overweight, and a handful of what we classify as obese by the BMI.

Interviewer: Do you feel that the school in general feels that obesity is a concern?

Respondent: I don’t think so.

Most respondents felt the role of the school was limited with respect to addressing healthy eating because home and community food environments were more influential on student’s dietary habits. The FCS teacher stated the role of schools should lean more toward education:

Well, I think we can only be the messenger. We can get the information out and offer better choices, but we can’t go home with the kids . . . [FSD] has done a tremendous amount of work with the snacks that we provide . . . . We send bulletins home to parents, but really what they do at home, um, we have no control over. And they, that’s unfortunately the junk food is still cheaper and more available, and easier to eat and prepare and you know, I guess we just do what we can.

Similarly, as the cafeteria manager stated:

I think it’s’ very good for schools to address that yes, I do. But what happens after that, we can’t control. Especially when convenience stores are just down the road (laughs).

The principal pointed to the home food environment, suggesting that schools should provide the healthy environment that they may not be exposed to at home:

There are students, by the environment that they grew up in, have not made positive choices in the foods that they choose to regularly eat. And school districts do need to take a role in educating and promoting and to a degree supplying, healthy, nutritionally rich foods to our students.

Respondents stated that schools are limited in their reach when it comes to promoting health. In this regard, the socioeconomic status of students’ families was seen as playing a contributing role. As the athletics director stated:

Eating healthier sometimes means spending a little more money, we’re hoping that message gets across to parents, it’s not always easy because families are on budgets as well. But I think that’s one thing that we try to educate too, that there are economical ways to make it a healthy meal.

In this way, actors expressed that schools have a strong responsibility to educate students and parents about healthy eating, while understanding that it may be harder for families with limited
resources. Despite actors’ views, their values still motivated them to push the implementation forward (in the case of the implementing actor) or support the implementation (in the case of the authority/general actors). Several factors can be seen to play a role in this balance. First, the implementing actor and co-lead were strong in their personal values about the importance of the work. Second, they had a strong state law that exerted external pressures on the authority actors to comply. Thus, these motivations outweighed perspectives that may have worked against their motivating factors.

D. **Other Interesting Findings: Retention of food service professionals**

The FSD stated that the school meal guidelines caused many FSDs in the state to leave the profession. As described by the FSD:

> Oh yeah. A lot of the schools here in the state, the directors or kitchen managers quit or retired. Because it was so different than what they were used to. I mean, they just didn’t have the drive or the will to change. And, there were a lot of people dropping out of food service in the management part of it because of all the issues.

This is a concerning issue for the profession and also to the field of school wellness, given the critical role that food service professionals play in school meal and snack policy implementation. Another issue of concern for the FSD was the low compensation rate for food service and cafeteria managers; according to her the lowest paid in the school district, which she attributed to poor support and respect for the profession overall.
Figure 13. Adapted conceptual framework–Iowa case
APPENDIX I
Case Summary—Kansas

Highlights of Case:
- Small, rural school with strong community support for school-related initiatives
- Weak state law and strong technical assistance from state department of education
- Current implementing actor hired with local wellness policy implementation as part of job description (co-lead with district registered nurse)

A. The Context
   1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>South Central</td>
<td>30.2%</td>
<td>9</td>
<td>Rural: Remote¹</td>
<td>57</td>
<td>89% White</td>
<td>84% ~50%²</td>
<td>Gold</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

Kansas state law pertaining to snacks only restricts Foods of Minimal Nutritional Value (FMNVs) in the cafeteria, which essentially has been the federal mandate for the last 30 years. This law became effective in the 2005–2006 school year and no revisions to the state law have been made to date. The state strength score for snack policies is 1 and ranks last amongst the eight states included in this study.

1. Rural: Remote is defined by the National Center for Education Statistics (NCES) as a “Census-defined rural territory that is more than 25 miles from an urbanized area and is also more than 10 miles from an urban cluster.”
2. The FSD verified FRP% for the school is the same as listed in NCES
policy language for the current year. The wellness policy does not explicitly charge any actor with responsibility for any monitoring or reporting on compliance activities. However, the districts complete the state tracking system above; the FSD states that monitoring of the snack standards is completed every year in order to renew funds for the Child Nutrition program.

The Kansas State Department of Education has a wellness policy reporting system that is structured according to the Kansas Model Wellness Policy. Districts enter their compliance to the policy online and are given assessments of each provision (basic, advanced, exemplary) and a complete or incomplete for each implementation step.

The district wellness policy was first adopted in 2006–2007. The most recent policy (adopted for 2013–2014) outlines snack standards for each snack venue that are less stringent than the HUSSC criteria. This is notable, given they received the HUSSC award in January 2013. This discrepancy is due to the new FSD’s role at the district; she is just starting this position and was not able to revise the wellness policy language.

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Title</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (Former)</td>
<td>• Implementing actor (initial implementation)</td>
</tr>
<tr>
<td></td>
<td>• In FSD role for 7 years; previously in head cook role for 25 yrs.</td>
</tr>
<tr>
<td></td>
<td>• Applied for HUSSC award</td>
</tr>
<tr>
<td>Food Service Director (Current)</td>
<td>• Implementing actor (ongoing enforcement and implementation of Smart Snacks)</td>
</tr>
<tr>
<td></td>
<td>• In current role for less than 1 year</td>
</tr>
<tr>
<td></td>
<td>• Co-leads wellness committee with district nurse</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td>Principal</td>
<td>• Authority actor</td>
</tr>
<tr>
<td></td>
<td>• In current role for 2 years</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td></td>
<td>• Involved on wellness committee for 2 years</td>
</tr>
<tr>
<td>District Registered Nurse (RN)</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• Co-leads wellness committee with Food Service Director</td>
</tr>
<tr>
<td></td>
<td>• First year on the job on wellness (2013–2014 school year)</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
</tbody>
</table>

*Cafeteria Manager and Athletics Director declined interview.*

4. **Key documents**

   District wellness policy (2013–2014)

   Letters sent from Child Nutrition Services to parents
APPENDIX I (continued)

Child Nutrition Services website
Local newspaper article on school snack standard
“Promoting Opportunities for Wellness” year 1 data sheet (Reporting on outcomes of PEP grant)

5. Wellness committee

The original wellness committee first formed in the 2006–2007 school year and met via video conferencing (Skype) due to the 66 miles between the farthest schools in the district. This district-level committee was originally composed of a nurse (now retired), FSD, and superintendent. Since that time, it has grown to include a representative teacher and administrator from each school and community members and healthcare professionals from the community (a total of about 14 members). The committee meets every 1–2 months and is now co-led by the current FSD and nurse. The nurse noted that it is difficult to keep a cohesive team at times because of the distance between school sites, a challenge for rural school districts. In addition, the nurse noted that the school is facing many competing challenges moving forward that put the wellness policy activities at a lower priority:

I mean, our support could definitely be better but with us being such a big district and one of our schools is consolidating to the other school for this next year. We lost our superintendent last year, we have a new superintendent, and a lot of the new schools have budget concerns, a lot of stuff going on, so . . . there’s only so much you can do.

6. Other nutrition-related programming

- The high school is involved in a PEP (Physical Education Program) grant that provides money for physical activity and education, nutrition education, and healthy eating initiatives. The principal reported that this initiative is working well with the federal mandate for nutrition:

And our push this year is of the nutrition. So, we’re working with classroom teachers and the kids on how to prepare healthy foods, healthy snacks, um, an awareness of the nutritional value of other things like that. So, just being the second year of that grant, I think it made more of an impact. And it happens to piggy-back with the federal mandates as well. So, that’s why I’m starting to see an impact now, I believe, more so than if we would not have been involved in this PEP grant.
APPENDIX I (continued)

7. **Snack foods and beverages available**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>Principal</td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD</td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>Principal</td>
</tr>
<tr>
<td>Concession/evening events</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>(through Booster Club)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. **The HealthierUS Schools Challenge award**

The former FSD was encouraged to apply for the HUSSC award by a state Child Nutrition representative during a management course for food service professionals. The former FSD reports that she filled out the application mainly on her own, consulting other actors for targeted pieces of information. The district registered nurse travels to other school sites and observed that the reason why this particular high school has been successful with school food reform is because the community is invested in the success of the high school. The HUSSC award was recognition that the school is well supported by the community:

The community is very determined to keep that school opened. So there’s a lot of community involvement with the school in going to events and plays or sporting events that the school puts on. And so, that creates very close knit environment with students and teachers at the school as well.
B. **Brief Chronology**

Figure 14. Brief chronology of Kansas case.

C. **Findings**

The former FSD was responsible for a wide range of initial snack policy implementation activities after the original wellness policy mandate. In addition, the new FSD was hired in the last year with a formal role in wellness policy implementation (along with the school district nurse) and they are now both engaged in Smart Snacks implementation activities.

This case offers an example of how snack policy implementation can be successful in a state with weak state law. The former FSD asserted that the small school size made it easier to implement due to the closer relationships between actors and as a result, little resistance to changes. The principal also recalled a time of implementation after vending machines changes and recalled some complaints but limited resistance due to the availability of junk foods outside of the school day:

> I think the snack machine, vending machines have been that way for quite a while, quite a few years now. They’re just used to it. They know of course they can still get unacceptable things outside of school, so during the school day I don’t think it’s been a big issue.

The principal continued on to state that the teacher’s lounge vending machines were never changed:

> I think teachers were ok with it for the kids, because we still have pop in the teacher’s lounge. Now if we were to take away pop from the teacher’s lounge, I’m sure they would not be very happy about that.
APPENDIX I (continued)

1. **Conceptual framework**

   The CIT hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 15) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. **Sources of implementing actor's power**

   a. **State technical assistance**

      The Kansas State Child Nutrition and Wellness department provided resources and guidance to the implementing actor. The former FSD recalled utilizing both informational resources and the services of a state food service consultant from Child Nutrition and Wellness, who provided one-to-one peer support related to snack policy issues. She stated that both of these TA pieces were critical to the success of implementation.

      In addition, the USDA Product Calculator was and is used heavily by the current FSD and district nurse on the wellness committee; this was introduced to them during a state training where they were trained on how to use this resource. This is the key TA piece that is utilized by these actors for implementation of Smart Snacks policies.

   b. **Communications and buy-in from authority actor**

      Communication was targeted toward the principal to obtain buy-in; especially in this small school, it is critical that the principal is informed. As the nurse explains:

      "The principal is the go-to person in the school. If the teachers have a complaint, they complain to the principal. If the parents have a complaint, they complain to the principal. We have to make sure they know that's going on so they can deal with questions and differing opinions."

      Thus, the important role of informing the authority actor in many ways works to harmonize the communication channels across the school. The current FSD makes time to meet individually with the principal and explain the Smart Snacks policy.

      At the time of the interview, the FSD was receiving materials from the USDA on Smart Snacks and bringing these to meetings with the principal to keep him abreast of the changes. The former FSD also noted that she shared most of her resources with the principal at the time, as well as with other
APPENDIX I (continued)

staff in the school. In this way, the state level TA and technical information was filtered directly to administrators and the rest of the actors in the school.

When speaking of resources from the state, the former FSD jokingly noted:

As long as they keep changing guidelines, we’ll need resources [laughs]. And I promise they’ll keep changing because somebody has not enough to do [laughs].”

3. Interactions facilitated by the implementing actors

The former FSD communicated about the snack policy reform to students as well as other community members through bi-annual newsletters to parents called “Nutrition Nuggets.” The former FSD said the communication efforts at the time were minimal (newsletters) and then to the principal and it was simply all she did: “We told the principal what was expected, and it was no big deal to them either.”

The new FSD is heavily involved with engaging students about the new Smart Snacks in Schools. She created “Food Teams,” meeting with groups of students throughout the district monthly to discuss changes to the snack policy. The nurse described how the FSD engages students:

She had a food team made up of students in every building. And so she’s met with them, and they would share their concerns about changes to the cafeteria or vending machines or whatever it may be. So, I would say they kind of ebbed and flowed a little bit throughout the year.

In addition, the FSD has an active Facebook page where she continuously communicates with students and other community followers about upcoming changes to the school food environment.

4. Ongoing enforcement and monitoring of the snacks policy

The current principal admitted that no one was responsible for enforcing the vending machine and fundraising policies previously but now that she has come on board, she views it as her responsibility:

Well, nobody had been in the past. This year, now that I’m aware of it cuz I didn’t know about it last year. I’ve been tracking it and then our school food service person is also tracking it.

This is confirmed by the current FSD, who noted that fundraising activities involving soda, cookies, and candy bars occurred previously in the high school during school hours, and they were attempting to enforce this more effectively. The FSD noted she and her district are closely watching for what the state of Kansas will set for fundraising exemptions as directed by the USDA. In addition, although the principal saw herself as ultimately responsible, she stated that she relied on the FSD to provide support for the Smart Snacks enforcement:
APPENDIX I (continued)

I would hope the FSD would work with me, but ultimately it would be each building level responsibility to do it. But I’m hoping that she’s there to help guide it and show us how we’re gonna do it and answer questions.

The new FSD stated that principals are concerned about the upcoming Smart Snacks rule for other high schools within the district, especially with fundraising, which can be challenging due to ambiguity about who has jurisdiction and the correct information over enforcing the policies.

We see more, anytime they start to have the clubs in the schools, where they’re doing fundraiser activities, that’s where we see more of the issues crop up and more questions about what’s allowed and what’s not.

The current FSD forecast that she would likely be responsible for the enforcement of the snack policy across high school. This is likely in part due to her technical knowledge of the policy, but also because implementation of the wellness policy was included in her official job description.

5. **Motivations**

Actors had mixed perceptions about adolescent obesity and the ability of schools to make an impact on children’s health. The current FSD felt that obesity is: “not as much of an issue as it is portrayed in the media, at least here.” The former FSD shared that obesity was not caused by school meals, stating:

Obesity has not happened until probably when computers come in and kids are less active. I don’t think it has a thing to do with school lunch, never has.

The current FSD agrees with this perspective, stating that the main contributors of obesity are found outside of the school environment. As a result, she felt that nutrition education was the best way to address this problem:

Um, it’s what they’re doing outside of school that is making them obese. So, I don’t know that during the school day, it’s the best example to be making . . . I personally have seen that I think we have affected more change in our students’ lives through the nutrition education grant programs that we have done, than in just feeding them a ‘quote-end-quote’ healthy lunch.

The current FSD made a connection between obesity and the socioeconomic challenges faced by families in this case. While there was a big discrepancy between the FRP eligibility percentage reported by the FSD and the NCES dataset, it may be assumed that she was referring to the portion of students who come from disadvantaged, rural families:

And I don’t know that the changes that we’re making at school are impacting them that much outside of school . . . also its hard to control if a family has a small rural budget, and they struggle to make ends meet, there’s only so much you can do to educate a kid to make changes in their household because they are affected, limited by what their family can afford.
The school nurse also acknowledged the same high needs of this population, stating “typically it’s the only source of nutritious meal for some of these families. We at the school work to do our part, you can make an impact to some extent.” Further, when asked about the role of the government in mandating nutrition standards, the former FSD expressed frustrations about the overall regulations for school foods:

I think they’ve gone overboard. Overstepped. I think it’s a little heavy handed . . . I think every administration has their priorities . . . I mean, we’ve cut sodium years and years ago, and now, what do you see, right now? Right now! They want to cut sodium even more. And it’s like, OK, what are they gonna think of next. I mean, we cannot eat without a little bit of flavor in things [laughs]. I just think that they’re being a little heavy handed.

The principal echoed this same perception about the role of government in mandating the food environment. She highlighted here again that the focus needs to be in the home environment and not in schools.

Well in my opinion, and again this is strictly my opinion. I feel like the federal government is choosing to mandate or try to control those that they know they can. Meaning, schools and government agencies and whatnot. They have a hold on us, if you wanna say so, funding-money wise, so they can control one way or another what we do; however, the real impact needs to take place at home. I mean, we can regulate and we and modify what kids get here all we want. When they walk out the door at 3 p.m., they have access to anything and everything. So until you change the education of parents, societies and communities, it’s really not gonna matter what we do during our seven hours here at school.

Despite expressing this frustration, the principal also reported that schools play an important role in health and nutrition education. As part of this role, she stated that it is important that school professionals role model the healthy behaviors they are endorsing:

Oh absolutely! I think we can have a huge impact with our kids as far as the educational piece of it. And if you wanna call it role modeling—I mean, we’re with these kids unfortunately more than parents are with their children during the day, and so, if they see us acting in and behaving in certain way, in my opinion, that’s definitely going to impact a child’s behavior and decisions that they make about health and fitness and nutrition. Again, however, once they go home, they need to see that at home as well.

The principal acknowledged the importance of the home food environment, while also revealing her professional duty (external pressure) to behave and uphold a certain standard as the leader in her school.

**D. Other Interesting Findings**

1. **Budget cuts**

The former FSD expressed frustrations about the fact that schools have to rely on snack foods to fund programs. While some respondents discussed budgets cuts impacting implementation
APPENDIX I (continued)

activities, this is the only respondent who made the link directly with lack of educational funding being the original reason for proliferation of competitive food and beverages in schools.

I don’t think it belongs there. I don’t think we should have to rely on that [snack sales] for money, but schools need. Our state has kind of become a bit criticized for the lack of educational funding by our current administration in the state. And it’s a shame that it has to come to that.

2. **Product development**

The current FSD reported that finding compliant products has been an issue but she anticipates this problem will be resolved by the time the Smart Snacks is due for implementation.

I think that by the time schools starts next year [2014–2015], I don’t think it will be as much of an issue. I can see right now that they are scrambling to reformulate things, repackage items, to fit the guidelines. And so, I am hopeful that by the time school starts next August, that we’ll have a lot more products available than we do right now. If I had to start this tomorrow, it would be a serious problem. But uh I can see that companies are scrambling to catch up and so I think by the time we start in August, we’ll have things that uh, we can use that fit the rule.

3. **Adverse effects of obesity interventions**

The school nurse expressed strong concerns about addressing obesity in a sensitive manner, due to eating disorders and peer pressures that students face in high school. She raised a potential unintended consequence of school food reform policies that are implemented in the name of adolescent obesity:

And so I do see that as concerning, but I also see it as a very sensitive subject to address because we also have had a few students struggle with eating disorders. When you’re growing up through your early school years, peer pressure is a big thing, and you just are vulnerable and self-conscious at different points throughout and handling these issues sensitively is kind of a challenge.
Figure 15. Adapted conceptual framework—Kansas case.
APPENDIX J
Case Summary—Mississippi

Highlights of Case:

- Strong role of state law, state technical assistance, and state financial incentives for HUSSC
- Both city- and state-wide commitments to healthy environment reform
- FSD involved with state task force and TA; expert in school food reform
- Robust Booster Club fundraising efforts that fall outside of snack policy

A. The Context

1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>South</td>
<td>39.7</td>
<td>10</td>
<td>City: Small¹</td>
<td>895</td>
<td>94% Black</td>
<td>82%; 89% per FSD²</td>
<td>Gold Award of Distinction</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

The state adopted snack regulations that were mandated for implementation starting the 2006–2007 school year (foods) and 2007–2008 school year (beverages) during the school day (defined as hours between 7 a.m. and 4 p.m.). The state strength score for snack policies is 47 and ranks first amongst the eight states included in this study. Most recently (2013–2014), the state updated their regulations concurrently with the deadline for Smart Snacks regulation, which mostly impacted standards that apply to middle schools.

1. City: Small is defined by the National Center for Education Statistics as a “territory inside an urbanized area and inside a principal city with population less than 100,000.”
2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.
APPENDIX J (continued)

The standards apply to the school day only. State law explicitly exempts school-related events such as “interscholastic sports, school plays, band concerts, or family events.” The state law requires monitoring and reporting to the state for compliance with state regulations (for local wellness policy overall). Further, the state requires a state evaluation of the overall local wellness policy. The high school adopted a school specific wellness policy, which was developed out of the original district policy in 2006–2007. The high school wellness policy closely follows state law and lists a wide range of stakeholders involved in development and implementation. The school snack policy follows the districts and states closely.

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
</table>
| Food Service Director (FSD)       | • Implementing actor and district wellness coordinator  
• Completed HUSSC application  
• Participated in state-level task force for local wellness policy activities |
| Principal                         | • Authority actor  
• First year at district (started 2013–2014 school year)  
• Not aware of wellness activities/HUSSC application  
• The former principal was instrumental in vending machine operations |
| Booster Club Chief Fundraiser     | • Support actor  
• District-wide chief fundraiser across all sports teams (a newly created role for 2013–2014 school year)  
• Not aware of HUSSC application or local wellness policy |
| Family & Consumer Science (FCS)   | • Support actor  
• Nine years teaching health education at the high school  
• Involved with development of the local wellness policy on the original wellness committee in 2006–2007; no longer serving on district or school committees  
• Not involved with HUSSC application |

*Cafeteria Manager declined to participate*

4. **Key documents**

District wellness policy EE/JGH Child Nutrition  
High school wellness policy  
District website for CNS  
Local newspaper articles (6) related to school food reform and childhood obesity
APPENDIX J (continued)

5. **Wellness committee**

This district started with a district-level committee in the 2006–2007 school year and for three to four years met bi-annually, which eventually led to the development of school-level committees. (Actors were not clear about what led to school-level committees.) Each school-level committee also developed its own wellness policy; according to the FSD and FCS teachers, the schools adhere more closely to the individual school wellness policy.

6. **Snack food and beverage venues available**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>Principal/District Business Office</td>
</tr>
<tr>
<td>A la carte</td>
<td>Available</td>
<td>FSD/Cafeteria Manager</td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>Principal</td>
</tr>
<tr>
<td>Concession/ evening events</td>
<td>Available</td>
<td>Booster club fundraising chief (no regulations</td>
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<tr>
<td>(Booster Club)</td>
<td></td>
<td>enforcing)</td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
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</table>

7. **The HealthierUS Schools Challenge award**

The FSD applied for the HUSSC award as a result of her close involvement with the state-level task force and her intimate knowledge of state-level initiatives. Actors associated the award with the many initiatives toward a healthier school and community. Unlike other cases, the HUSSC award was less associated with reviving the CNS reputation and more with their consistent striving toward achieving healthier environments, an initiative that is supported at the city and state level.
APPENDIX J (continued)

B. Brief Chronology

Figure 16. Brief chronology of Mississippi case.

C. Findings

This case is unique due to its strong state law for snack policies (“sticks”) and state technical assistance and financial incentives (“carrots”). The state provided a financial incentive for schools to apply for the HUSSC award ($6000 for the Gold Award of Distinction). To date, Mississippi is one of only five states that provides this financial incentive for meeting competitive food laws (Gourdet et al. 2013). As the FSD stated, they applied for the highest level award because it was “the right thing to do, and most nutritious for our students,” but also because they had the “support of the state and funding from our state.” Further, the high school is situated in a city that has a strong commitment to health and has received a Blue Cross award for health-related initiatives. All of these contextual factors took the burden of low power from the implementing actor and facilitated buy-in for snack policy implementation.

Once the stringent state law was passed in 2007–2008, implementation at the school district and school was not a challenge, according to all respondents. As the FSD recalled, the hard power of the law in combination with nutrition education targeted toward all actors was the most effective in facilitating implementation. It is key to note that the education focused around the link to children’s health:

Each school district just implemented those changes. I don’t think it was hard. You know, once people get accustomed to removing items . . . and there was a large promotion that they explained why the health of our children is so important. Once people got on to that we went through the process. It was not a challenge to implement.

The FSD recalled that because the changes were made incrementally, there was minimal resistance from the students. This is consistent with a finding from Bassler et al. (2013) who reported
that incremental changes were listed as a key facilitator in implementation. In fact, according to the principal, there was mostly push-back from food and beverage companies, but minimal resistance from the school community:

Primarily it was for the businesses associated with the vending and beverages. It was a big deal to them. They really thought it was gonna cripple their business and they ended up finding out, it was somewhat the opposite, they were able to be creative and come out with new products that would meet the guidelines. I think initially there were a lot of concerns from the outside. I wouldn’t say from the school side not at all.

Lastly, the snack and school meal reform at this high school was considered one initiative within a larger community-wide effort to improve the health environment. As the FSD described:

Our city in itself has taken on a lot of initiatives too, and have been awarded several grants to promote healthy lifestyles. So I think mainly because our city, and then we’re a university town too, um, where they’ve implemented programs and have gotten grants that have been involved in our community. Then all of that has helped our school district to continue to focus on the nutrition. It’s more of a team effort.

1. **Conceptual framework**

   Contextual Interaction Theory (CIT) hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 17) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. **Implementing actor’s power sources**

   a. **Strong state law (“the stick”)**

   The state law was reported to be significant by all actors in this case. The principal referred to state law repeatedly as he described his experience with implementation and ongoing enforcement. The principal stated that improving the school food environment did not impact academics (a minority view across cases in this study) but it was something he must do to remain compliant with state policy.

   Respondent: And we have to really learn to be able to determine how’s it gonna impact us in our daily endeavors, so for the most part, it will have a little impact on what we try to do in the teaching and learning business. But we still have to do our job as far as being compliant with what’s expected of us from the state mandate.
Interviewer: Do you feel it makes a difference with their [students] ability to learn?

Respondent: No, it doesn’t have any impact on that at all.

His comment highlights the strength of the state policy and that it allows the implementing actor to move implementation forward despite the perception of the policy’s limited impact on academics by the school’s authority actor. Since the state was such a strong catalyst, the implementing actor’s role was critical but the need for her to enhance and exert her power was significantly reduced because she had the “law of the land” behind her. Her role instead focused on ensuring the state law and TA pieces were implemented with integrity.

b. **State technical assistance**

The Mississippi State Department of Education offered incentives and educational opportunities as TA tools to facilitate implementation. Webinars and resources were offered for the FSD to enhance technical knowledge on the policy. Lastly, a TA consultant provided hands-on teaching on implementation steps for the snacks policy and how to apply for HUSSC. This form of TA proved invaluable for the FSD, as she recalled:

Another thing our state department did was, they provided a resource person, an official resource person out of the state office to come out and offer hands on assistance. That really helped us too, where we didn’t have to work alone, there was the state department provided that additional ear and eye for us. That was very helpful. She was a former, uhh, Child Nutrition Director who had been awarded a certification from her district. So that was helpful too.

The FSD stated the USDA website was her other main source of resources. While this is a resource at the federal level, she learned about how to use the resource from state department trainings. She said the website is easy to navigate and provided the customized information that she needed.

c. **Peer-to-peer technical assistance**

The FSD relied upon fellow Child Nutrition Directors from neighboring school districts for TA, as all districts followed the same state guidelines. She reported this was a critical facilitator in the implementation phase:

So, really partnering with another director, and trying to work along with other directors, who had the same goal in mind, could really help the both of us to work through the process. We would always get clarity from each other.

3. **Interactions facilitated by implementing actor**

a. **Nutrition education to students**
Enhancing support and target actors’ technical knowledge of the snack policy was conducted in several formal and informal mechanisms. The implementing actor strongly advocated for nutrition education programs (e.g., Fresh Fruit and Vegetable program) that increased nutrition education in the classroom and familiarized students to healthier eating habits. Further, this program allowed her to create partners in her initiative: As the FSD stated:

It gives another added layer to promoting education and nutrition in healthy eating to our students, too. Outside of the cafeteria. We just kind of developed another partner in the classroom, you know, with the teacher, when the Fresh Fruit and Vegetable Program was implemented.

b. **Internal communications with support and authority actors**

The implementing actor facilitated communications and provided TA to administration, support actors and other faculty to garner buy-in and minimize opposition. Communications were provided at teacher in-services, through food newsletters to parents, and through state-provided pamphlets. In filtering these resources to administration, they were also able to keep the authority actor abreast of changes and effectively communicated to their stakeholders (students and parents). The principal noted that he relied on the FSD for information related to the snack policy and these items help to facilitate better awareness and thus, acceptance of the ongoing changes.

4. **Ongoing enforcement and monitoring of the snacks policy**

As noted, the principal was well aware of the stringency of the state law and quoted it frequently. However, he did not have a high level of knowledge about the standards themselves and seemed to rely heavily on the district-level office for purchasing (for vending machines) based on specifications set forth before his tenure. The FSD noted that these specifications followed state purchasing requirements strictly, taking the burden off of the principal to monitor this closely.

In terms of fundraising, the principal received educational materials for nonfood fundraising from the FSD and distributes this to interested fundraising groups. He is responsible for ensuring that fundraisers during the school day adhere to these guidelines. It is unclear from all actors how he has managed to fulfill this role as his tenure is short.

While the school remains compliant to the snack policy during school hours, there are significant loopholes where students have opportunities to access junk foods from their school environment. For example, the FSD noted that the principal allows Dunkin Donuts fundraising:

Some of them sold Dunkin Donuts. But they only took orders and they delivered the doughnuts on Saturdays. So they tried to work real hard to stay in tune and implement the policies, healthy foods policies.

In this way, implementing healthy policies is translated by these actors to mean doughnut sales on Saturday instead of during the school day. Further, the school has a robust Booster Club district-wide fundraising program that sells a variety of junk foods during sporting events after school hours:
APPENDIX J (continued)

We will run food concessions at all the venues, all the basketball, soccer, baseball, all the events. Basically what we do is take those popular items and sell during those events, and that is from hamburgers, hot dogs, nacho cheese chips, and then your candies, for the sweet tooshts out there. We do also, just in football, we’ll sell french fries. We sell our hot dogs and hamburgers, that’s only during football season. We do potato chips as well. And, typical things, like that, that you know the kids want, at the concessions.

Although the chief fundraiser oversees food and beverages that fall outside the purview of the Smart Snacks rule, he was still interviewed. He stated that he had heard a little about Smart Snacks standards in the local newspaper but mostly did not know any specific information. Surprisingly, he stated that he would find it acceptable if the guidelines were applied to evening concession because customers would get used to the changes eventually:

We’ve never been asked to deviate from our menu because of it being in concessions. We haven’t been asked, so I would assume that it is safe for us to sell those kinds of items. If we had to adhere to those standards, I don’t think we’d be as successful, uhh as we are now. I think over time we would, because it would be an initial, I’d say, culture shock if we had to, let’s say remove all carbonated drinks. I think we will you know, initially have a change, but overall, and I guess a few years down the road, I think it would become, just common and end up being OK.

His statement offered an opportunity for all high schools to consider setting more stringent guidelines for fundraising and sporting event foods and beverages.

5. Motivations

Overall, all actors reported that adolescent obesity is a problem in the school and society at large. Actors in this case voiced the least skepticism of government regulation of the school food environment (of all the cases). While they did see the home environment as important, actors saw school food reform as part of a larger community and statewide effort. Several referenced Mississippi as the leader of obesity rates in the nation and cited the many initiatives that the city and state are undertaking as a response. As the principal stated:

I think it’s a big deal. I think I understand the reason why there’s so much research and statistics related to healthy diet and healthy eating, and if it can start at the school level of practicing good habits then that’s a great place to start, so I am for it.

Respondents also felt the school had a responsibility to educate both students and parents about healthy eating and the importance of the home food environment. The FCS teacher recognized the important role of the school, amongst other roles:

Yes because schools have a responsibility to educate, period. I feel like it’s not our sole responsibility, it doesn’t only rest on the school but we play a big role because we offer two meals of the day. And I feel it’s important to help educate parents.

The FSD agreed, stating that educating parent is critical because dietary habits are formed early in life:
Because so many of our habits are formed before five years old, when a student is starting kindergarten, sometimes we realize you know, that the parent is their first and most important teacher, because sometimes a lot of those habits and exposures that children have, have already been created and developed.

As actors in a school with a high poverty rate, actors in this case connected the role of schools in healthy eating to issues of poverty. When asked if schools play a role in addressing healthy eating, the Booster Club leader responded:

I think the research shows that those of poverty, those have the worst eating habits, so if you can kind of you know, deter that, I think it’s a pretty good thing. Ummm, but again I think you gotta be real careful on how you do it. You gotta do it for the latter reasons, not just because it’s a forced mandate, or you have to do it. I would assume that, I would think that they’re doing it for those right reasons.

It is interesting that he offered an opinion that it should not be a forced mandate because in this Mississippi case, the state law emerged as one of the strongest facilitators toward implementation and was cited by every actor. Lastly, his comment about doing the implementation work for the right reasons is a common theme in this case and mentioned by all actors.

D. Other Interesting Findings

The FSD reported that a significant amount of revenues were lost when they first began to implement the state snack policy. One mechanism to relieve these losses was to rely on the State Procurement program to find compliant items that would also sell. The FSD said vendors were slowly coming around to offer products that fit the range. This is another example where the state is heavily involved to regulate and facilitate school districts’ implementation practices. The FSD reported that all but two or three schools are part of this state procurement program.
Figure 17. Adapted conceptual framework of Mississippi case.
APPENDIX K
Case Summary—New York

Highlights of Case:

- Weak state law; focus on federal law and HUSSC criteria
- Small school district with strong relationships between actors
- Passionate principal focused on a healthful school environment
- Implementing actor (FSD) is also a state TA consultant and an expert on school meals and snack policy implementation

A. The Context

1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th>Locale</th>
<th># of schools in district</th>
<th>Total # Students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>East</td>
<td>32.4%</td>
<td>Town: Fringe¹</td>
<td>3</td>
<td>513</td>
<td>89% White</td>
<td>17%;</td>
<td>Gold</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

New York’s state law for snack foods was adopted in 1987 and has not been revised since. This policy only restricts FMNVs, which is essentially the previous federal mandate (also from 30 years ago). The state law does not contain any language related to monitoring of compliance or reporting. The state strength score for snack policies is 1 and ranks last amongst the eight states included in this study.

The school district has adopted a wellness policy but I was unable to obtain it for this study. The FSD described that it is general and will likely undergo changes as a result of the Smart Snacks rule: “So I think we need to look at our policy and make sure that’s in there. Our policy is quite general, it may need to become more specific with some of the changes that in the legislation.”

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¹ Town: Fringe is defined by the National Center for Education Statistics as a “Territory inside an urban cluster that is less than or equal to 10 miles from an urbanized area.”
APPENDIX K (continued)

3. **Key actors interviewed**

<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (FSD)</td>
<td>• Implementing actor</td>
</tr>
<tr>
<td></td>
<td>• Oversees at Food Nutrition Services at the district</td>
</tr>
<tr>
<td></td>
<td>• At the district for 26 years</td>
</tr>
<tr>
<td></td>
<td>• Responsible for completing and submitting HUSSC application</td>
</tr>
<tr>
<td></td>
<td>• Involved in master instructor program for the New York State Department of Education</td>
</tr>
<tr>
<td>Principal</td>
<td>• Authority actor</td>
</tr>
<tr>
<td></td>
<td>• Involved on wellness committee for 2.5 years since starting at the school</td>
</tr>
<tr>
<td>Cafeteria Manager</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application or wellness committee</td>
</tr>
</tbody>
</table>

*Athletics Director and Business Office Manager declined.*
*Retired Social Worker was original wellness champion; unable to reach.*

4. **Key documents**

   - District’s Child Nutrition webpage
   - Press release from Child Nutrition Department re: changing of “Healthy Changes in School Cafeteria”

5. **Wellness committee**

   The wellness committee was formerly headed by the district’s social worker who was laid off four years ago due to state-level budget cuts. The Health and Safety Committee absorbed some of the duties of the wellness committee but their aim has been much broader than the wellness committee. The principal attributed the key role of the social worker for many of the original wellness committee activities. The FSD was always responsible for any snack policy implementation. The principal reflected on the gradual growth of the committee’s initiatives:

   It originally began more about like assemblies and singular events, and then as time went on, it became apparent that we needed to make changes on a daily basis, you know, things that affected kids day to day, like the vending machines and the lunch menus and things like that.

6. **Other nutrition-related programming**

   The principal was very enthusiastic about implementing the School Breakfast Program and felt it made a significant impact on the academics of the student population:
APPENDIX K (continued)

So the fact that all these students are participating in a breakfast program, clearly we have more than you did before eating breakfast . . . I don't have hard data, so its observation, but you have energy levels that are maintained during those first periods of the day, where you know, that hunger isn't there because they've had a breakfast. Um, academically we're a high performing school. I'd like to think there are many reasons for that, but I wouldn't underestimate the value that our kids are being fed, you know, breakfast.

7. **Snack food and beverages available**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>FSD/District business office</td>
</tr>
<tr>
<td>School stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD</td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>Available after school hours</td>
</tr>
<tr>
<td>Open/Closed campus</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. **The HealthierUS Schools Challenge award**

The FSD was encouraged to apply for the HUSSC award by the New York State Department of Education and the high school became the first in the northeast region to win the Gold Award, according to the FSD. This encouragement from the state was the catalyst for snack policy implementation in this case, as the FSD recalled:

It was recommended to me through the New York State Education Department after them looking through our program they felt we had all the criteria to apply for it. So they asked if they could give any assistance, and if I could try to apply for it. And that's how that all happened.
APPENDIX K (continued)

B. **Brief Chronology**

Figure 18. Brief chronology of New York case.

C. **Findings**

This case is small with only three schools in the district and in a setting described as rural by the actors. The FSD stated that because of the small district, she was responsible for a wide range of job duties:

I mean it’s all encompassing, so that it encompasses nutrition, as well as financial, as well any kind of community activism as well as providing technical and professional assistance to my employees, so I guess it all encompasses all facets of food service. I do not have any assistance because we’re a relatively small school district.

The FSD is very engaged in state level school nutrition training and efforts, which gives the school an advantage. As the FSD recalled, changes to snack availability caused a decrease in sales initially but overall were accepted fairly well over time:

Oh I think there’s always a time that you can see it in your sales. Not vocally, but you can see it in your sales. When you institute new changes to your program, whether it be à la carte or whether to the food plan itself, you can see it with your sales going up and down. So as time goes on, they generally become more accepting of the product after they try it for a while. So I think there’s definitely a period of adjustment for the children.

1. **Conceptual framework**

Contextual Interaction Theory (CIT) hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 19) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting
APPENDIX K (continued)

with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. Sources of implementing actors’ power

a. Federal law

In the absence of strong state law, both the FSD and principal cited the federal law as the reason for their actions (although the principal was unsure of the specifics of the standards). The FSD also referenced the HUSSC snacks criteria as part of the federal requirements. She stated that the release of the Smarts Snacks rule also was a catalyst for their wellness committee to become active again. The principal commented that the federal law was used as a rationale that would obtain support from the school community, including faculty.

No, I think teachers, you know, recognize that there are federal mandates that we don’t have a choice. You either do it or you’re in trouble.

b. State Technical Assistance

The FSD attributed workshops from the State Department of Education, as well as the Snacks Calculator (which is from the USDA but introduced to her by the state department). These resources were helpful for the FSD both for direct technical knowledge to assist with implementation and as a communication tool to district administration. At the time of the interview, the FSD was contemplating potential changes to the district standards as a result of the Smart Snacks rule, and resources from the state helped to facilitate communication to district administration:

I think there were two or three pages of information that came out from the state government. A flyer, that I forwarded on to my superintendent that reflects what they’d like us to update the policy to, um, have included in it.

c. Implementing actor’s expertise and capacity

The implementing actor is, as the FSD described here, often designated by default because that they hold the most technical knowledge about the snacks policy:

I’m probably the only one who fully understands the legislation right now. Um, and then that’s the difficult part is understanding what’s going to qualify cuz some of the other offerings, drop the school district day, what they can have, what they can’t have, those kinds of things.

In addition to her expected role as the nutrition expert in the district, the FSD in this case was also an expert who worked directly with the state department to deliver TA for the rest of the state. This is a critical factor that moved the case towards stronger snack food practices, in light of limited state guidelines.
I teach for them [state]. I’ve developed professional programs for them. They have what they call master instructor program I’m a master instructor in five different areas. I work with them in that way, school districts will call you and you’ll go out and work with them, developing their school district, depending on what they want taught to them, whether it be sanitation, production records, standardized recipes, marketing is another one. So, it just depends what they want. Then I have to get involved with further educating their staff. There’s a network of us throughout our state that can be called upon.

d. **Support from authority actor**

   The principal was very engaged and invested in health-related issues. He noted several times that they had lost the social worker (local wellness champion) due to budget cuts, and as a result, a lot of wellness policy goals and activities were lost. However, the snacks policy implementation moved forward with work of the FSD. The FSD noted the importance of having the principal (hard power) on the wellness committee:

   The reason I say that is because they have to have um, some kind of um, I don't want to say power but some kind of authority, to pull the team together, and institute some of the policies that the team comes up with. Um, you can’t just have a volunteer from outside being the wellness team.

   She explicitly stated a reluctance to use the word “power” but in fact, she is referencing the importance of having an actor with hard power (formal authority) over the initiatives in the district. The FSD’s close relationship with the principal allowed her to utilize his support to move implementation forward. Further, while the superintendent was not interviewed, the FSD noted that his support was also important.

3. **Interactions facilitated by implementing actor**

   a. **Obtaining student engagement**

   The FSD was engaging students and garnering buy-in from the bottom-up. The small size of the district allowed her to engage directly with students regularly and gain their feedback about changes to snacks on campus. She created food surveys, obtained student representation on the wellness committee, and actively involved students in taste-testing of new products. This is an ongoing process that she has conducted over years of incremental implementation. The principal also reported that engaging students was important to gaining their buy-in. Many of the activities, such as taste-testings, would be tied to overall wellness activities at a time when the committee was more active. As the principal recalled:

   That was very helpful because I think it was buy-in, you know, you have students who were engaged in the decision-making and a lot of them put in what kinds of food choices they would prefer, what they like, that would be both healthy and yet sell. But it took time.
APPENDIX K (continued)

b. **District-wide communications**

The FSD was the conduit for spreading technical knowledge to administration and thereby garnering support from the district in top-down fashion. The principal was involved with communications throughout the district and attributed successful implementation to gaining buy-in from the right combination of people. Thus, despite the history of budget cuts and losing a key school professional, these setbacks were not enough to hinder snacks or wellness policy implementation. As the principal recalled:

I think you know money's always an issue. Even in good times, you never have enough. But I think there was just the good combination of people who wanted to address the wellness of our school. The kids, the adults, the community, and just a lot of people with great energy, and focus. Um, I don't recall any obstacles that you know, if you asked me that question in the academic realm, I could spend the next six hours with you, but from this standpoint, no, I don't recall any major obstacles.

A key component of interactions was effective communications. The principal was involved with reaching out to the school and parent communities to alert them of upcoming changes. As the center of communication for the school, he stated this was a strong facilitator for implementation; he listed many of the strategies here:

Some was through newsletters we sent home, to parents, about six times a year. With students, it was through PA announcements and internal communications here at school. And likewise with teachers. Memos and minutes of meetings, minutes of the wellness committee with faculty at large, so I never heard a complaint on the communication. As our website developed more over the last 10 years, you know, when this originally started our website was pretty primitive, you know 15 years ago or whatever. So, as websites developed and evolved into more sophisticated means of contact, we were able to add a lot to our website.

4. **Ongoing enforcement and monitoring of snacks policy**

The principal stated that enforcement was his duty, as well as the FSD, and members of the Health and Safety Committee; however, the actual monitoring is conducted by the FSD. The FSD confirmed this statement, stating that she dealt with any issues that came up and then reported them to the principal if they remained unresolved. She has exercised this chain of monitoring in the past. The principal suggested here that he trusts the FSD to maintain compliance of snacks on campus and this relieves him a lot of enforcement activities:

I think [FSD name] is probably the most capable people I've seen in not only the knowledge of federal or state guidelines, but of monitoring them. We sort of call them the soup Nazis. They are inflexible. And to their credit. They are very rigid about not putting the district in any jeopardy of noncompliance or losing funding of any sort. So, you know, the limitations I have only because I'm not so much involved in it, but knowing when I deal with it, their knowledge and their policing is pretty intense.
APPENDIX K (continued)

Yet the FSD noted difficulties with her job of enforcing the policy, due to a “black market” of junk foods. Thus, even in this exemplary high school case, it appears there is not an expectation for 100% compliance to the policy:

We’ve always had to monitor . . . I don’t think that changes anything, we’ve always had to watch. Whether or not everyone will be compliant, there’s always a black market. Oh believe me! There’s always the selling of stuff out of lockers.

The FSD noted that aside from this issue, there were few concerns with enforcement and monitoring during the school day. She reported being unaware of fundraising after the school day as it was outside her domain. The principal reported that there are school-wide fundraising events organized by the athletics director (unable to obtain interview) and other school organizations. These sales involve both food and nonfood items to students and appear to be noncompliant to the snacks policy. As the principal stated:

I think everyone at some point does the baked goods sale, cookies and pastries, you know, for events. I think that’s . . . cookie dough, that’s another thing that they’ll sell as fundraisers for organizations.

Thus, even in this exemplary school, there were abundant sales of junk food items outside of the school day.

5. Motivations

Both the implementing and authority actors reported frustrations related to their perceptions about obesity and role of the school food environment. The FSD stated that obesity was not caused by the school system; rather, the main contributor was the home environment:

Umm, on the obesity in the school, and the problem is, children are coming to school overweight. They’re not gaining in the school. They’re gaining before they got here. So, I think that more attention needs to be paid, actually, to not just the K–12 but actually to the parental guidance that parents are being given when the kids are at home . . . . Because something’s happening before they get here. Where they’re already overweight.

As a result, the FSD felt schools are unfairly targeted as the blame for school systems, resulting in mandates that she perceived to be overly stringent:

It’s rather sad that um, they look only to the schools. They don’t seem to be talking as much about caring throughout the day. . . . To ask what’s going on in schools, I know that’s all they can mandate, so that’s why they pick the schools, but it’s really quite sad that they created almost like a death sentence to go into the cafeteria for the kids.

The principal shared similar frustrations with being mandated to promote wellness in a dynamic environment:

So much decision-making is done politically, and not without, what I call, you know, substantiated support and data. Um, and I think what happens is, that because they’re not in the
profession, they're not here every day, they don't understand the ramifications of decisions that they make . . . working in the school is a very complex dynamic, and understanding different cultures, whether it be in the community, ethnicity, or even school community. When so much is taken out of our hands, it really debilitates us in the greater things that we're doing.

Part of his frustration was because he believed education to be a “locally controlled concept” and his ability to serve his school was inhibited by federal mandates:

I do believe that education is really a locally controlled concept. I look at it from the standpoint of every community should decide what it wants its educational system to be. Don't get me wrong, I'm not saying it’s “the Wild West and you do whatever you want.” No, I think there clearly has to be standards and parameters, but you know, so much has been taken out of the hands of local control, that it's one size fits all.

Further, the principal reported that as a result, the government over-regulates with respect to the school food environment. He added that rather than restrict junk foods too heavily, the school should teach moderation because it will teach students to learn healthful behaviors in a community that offers a wide range of choices, including junk foods:

I look at that from your perspective with nutrition, is saying, when our kids leave this school, whether it be at 3 o'clock every day or when they graduate, they walk into a world that offers them all these choices of french fries, hamburgers, ice cream, and I think what the problem I have is what we should be teaching our students when it comes to things like nutrition or wellness, is moderation.

Both the FSD and principal expressed concerns with schools being the focus of childhood obesity prevention and the frustration of having this large responsibility placed upon them. However, despite these perceptions, both actors stated they would not roll back the policies they have implemented. Both actors repeatedly mentioned the federal mandate as one that they closely follow and this was what motivated them to go through with implementation.

Lastly, the principal stated that he had not seen the snack policy truly change eating behaviors outside of the school environment. Instead, he stated that it created awareness for healthier food items:

I think it brought an awareness, because when all of a sudden people are talking about why this, or what’s this, or why did they do this. It brought an awareness, but I think if you asked me, did it change habits? No! Because kids that drink the Powerade Zero from our vending machine, when they go to the store and come back for practice, they're drinking the sugary Powerade. And I think, as I said, the kid that eats a lunch that doesn't have any salt or whatever. When they go to McDonalds and get a load of french fries for practice, before practice, it's McDonalds french fries. So, that's, I don't see behaviors changing in terms of those choices. For those who drink, you know, PowerZero, even at home. They're maintained on that. I haven't seen those kinds of behavioral changes.

This is particularly interesting because this case started to implement snack policy changes almost 14 years ago (2001–2002 school year); thus, the principal's comments reflected his perception of changes to student intakes quite a long time after ongoing implementation.
D. **Other Interesting Findings**

1. **Budget cuts**

   This is one of the few cases where the impact of budget cuts emerged several times throughout interviews. Budget cuts are a hindrance to giving attention to focusing on the wellness policy activities in the school; however, as discussed, the snacks policy implementation was not hindered because of the FSD was the implementing actor. The principal explained:

   I mean, nationwide you have Race to the Top, and the Common Core, so what's happened is there have been all these other form initiatives that have come through so in plain English. . . . So it's a perfect storm of being asked to do so much more with so much less. And of course, politically you'll hear from the Commissioner in New York State, or even the Governor, “we're not asking you to do more, we're asking you to do differently, not more with less.” You can spin it any way you want [laugh] there's only 24 hours in the day. So things like the wellness committee, lost a lot of its energy, when you don't have someone that has the time, the credentials, the expertise, to do the things that are appropriate and necessary.

2. **Readiness and working with the food industry**

   The FSD worked closely with the food industry as a means to offer products that will sell and maintain her revenues:

   Yeah I think so, you constantly have to work with your manufacturers, and industry to develop products that will be acceptable to the students. There is demand out there for a healthy cookie, I think it probably sounds contradictory, but it’s true. So we’ve spent a year or two to develop with our local and regional manufacturers to develop something that is student accepted. And hopefully we have done that. And will keep up us financially sound, on the other hand our à la carte sales do keep us financially sound. So we have to look to that. It’s not just based on the meals that we sell but a lot of the à la carte that we sell. So that has to be taken into consideration when we’re planning what’s in those à la carte machines.

   She noted that overall, the food and beverage industry was still challenged with the mandates coming on very quickly and manufacturers not being able to keep up with the new standards:

   So I just got back from our conference in Boston, we have our national conference once a year, and it was in Boston this year the food show centered around healthy choices. And being compliant with new offerings, but it was a very tough sell. The quality still just isn’t quite there. The formulations are there, but some of the quality still isn’t right now where you’d like it to be. I think we’re asking them to do a lot in a short amount of time. So it’s very difficult for the manufacturing partners.
APPENDIX K (continued)

3. **Impact of community food environment**

The principal observed the impact of the unhealthful community food environment on students’ diets. The high school is surrounded by fast food and junk food outlets that he observed were a deterrence to healthy eating. As he explained earlier, the snack changes had not created significant changes to students' dietary choices outside of school hours.

So you know, our kids can leave after school. Many who have athletic practices, organizational meetings will . . . there's some fast-food restaurants within walking distance. A Chinese restaurant, some delicatessens, supermarkets. You know, there's ample opportunity for them to, after-school to go and get a meal or whatever, and like I said, some maintain eating healthy, others they come back with a full soda and french Fries, and double cheeseburgers.
Figure 19. Adapted conceptual framework—New York case.
**APPENDIX L**

**Case Summary—Texas**

### Highlights of Case:
- Strong role of law (Texas Public School Nutrition Policy) and penalty for noncompliance; emphasis on monitoring and enforcement
- Sodexo played role in proactively reforming school food environment and providing opportunities for peer-to-peer TA with other FSDs
- Heavily involved principal with interest in healthy food environments
- Strong focus on building district-wide partnerships and improving the reputation of CNS

### A. Context

1. **Demographics**

<table>
<thead>
<tr>
<th>Region</th>
<th>State Child Obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: St Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>West South Central</td>
<td>36.6%</td>
<td>65</td>
<td>Rural: Fringe 1</td>
<td>1890</td>
<td>99% Hispanic</td>
<td>80%; 86% per FSD 2</td>
<td>Silver</td>
</tr>
</tbody>
</table>

2. **Highlights of state snack law and district wellness policy**

   The Texas Public School Nutrition Policy (TPSNP), released by the Texas Department of Agriculture (TDA), went into effect February 2009 and was scheduled for implementation over six years. The standards apply to à la carte, snack bars, vending machines, school stores, and fundraising during the school day. After the release of the Smart Snacks rule, TDA added that districts may have unlimited fundraisers as long as items meet the Smart Snacks guidelines; items that do not meet the rule must be sold outside of the school day. The state also requires annual reporting on compliance to the policy, as well as a report to the public on local wellness policy compliance.

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1 Rural: Fringe is defined by the National Center for Education Statistics as “rural territory that is less than or equal to 5 miles from an urbanized area, as well as rural territory that is less than or equal to 2.5 miles from an urban cluster.”
2 The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.
The state is one of seven in the United States that enforces penalties for noncompliance to the snack policy. If a violation of the policy is detected, TDA withholds meal reimbursement for the day and up to four weeks from when the incident was detected. In addition, the state requires a corrective action plan to be submitted. This is a stringent penalty law in comparison to other states, and could result in substantial monies lost by school districts. The state is required to evaluate and report on this compliance. The state strength score for snack policies is 47 and ranks first amongst the eight states included in this study. The school district’s adopted wellness policy, Student Welfare—Wellness and Health Services, is followed by many Texas school districts and directly references the TPSNP and also cites federal regulations and guidance. There is no high-school-level policy. The district vaguely states that “district and campus-level administration” shall put a plan into place for periodically measuring compliance to the policy.

3. **Key actors interviewed**

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<thead>
<tr>
<th>Titles</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (FSD)</td>
<td>• Implementing actor &amp; local wellness champion</td>
</tr>
<tr>
<td></td>
<td>• In current role for 4 years; at the district for 10 years</td>
</tr>
<tr>
<td></td>
<td>• Completed HUSSC application</td>
</tr>
<tr>
<td>Principal</td>
<td>• Authority actor</td>
</tr>
<tr>
<td></td>
<td>• Started at the high school at the end of October 2013; principal at middle for 3 years prior; teacher at this district for 25 years prior</td>
</tr>
<tr>
<td></td>
<td>• Currently not involved with School Health Advisory Committee (SHAC) but was previously in his other roles</td>
</tr>
<tr>
<td>Assistant Superintendent of Finance and Operations</td>
<td>• Authority actor</td>
</tr>
<tr>
<td></td>
<td>• In current role for 2 years</td>
</tr>
<tr>
<td></td>
<td>• Involved with operations and finances of CNS</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC or wellness committee</td>
</tr>
<tr>
<td>Cafeteria Manager</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• In current role for 2 years</td>
</tr>
<tr>
<td></td>
<td>• In various schools within the district for 8 years</td>
</tr>
<tr>
<td></td>
<td>• Not involved with School Health Advisory Committee (SHAC)</td>
</tr>
<tr>
<td>Associate Principal of Operations/ Supervisor of HE/PE programs/Coach/Supervisor Career Technology Programs</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• In current role as associate principal for 2 years</td>
</tr>
<tr>
<td></td>
<td>• In various roles at the district for 18 years</td>
</tr>
<tr>
<td></td>
<td>• Involved with School Health Advisory Committee (SHAC) for 1 year</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
</tbody>
</table>

4. **Key documents**
- District wellness policy (FFA Local) (2008–2009)
- CNS website
- Texas School Nutrition Policy
APPENDIX L (continued)

5. **Wellness committee**

The SHAC was developed in 2006–2007 and is a district-wide committee comprised of nurses, teachers, principals, food service, administrators, coaches, community members, parents, and students. The committee meets monthly and makes recommendations to the school board for local wellness policy revisions.

6. **Other nutrition-related programming**

- Farm to School Program
- The principal described the School Breakfast Program as an important program that he believes helps to boost academics. As he asserted:

Well it’s hard to say because I did it in the first year but I can tell you that our campus academically improved each of the three years that I was there, and then when I left at the end of October, they continued and they’ve shown steady improvement. And, I just have to believe that you know, that has something to do with it, a consistent way of working with kids when it comes to assuring that they eat and um, that they’re ready to learn, so it’s important.

7. **Snack food and beverage venues available**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available</td>
<td>District Business Office</td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD/Cafeteria Manager</td>
</tr>
<tr>
<td>School Stores</td>
<td>Not available</td>
<td></td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available</td>
<td>FSD/Cafeteria Manager</td>
</tr>
<tr>
<td>Concession/evening events (through Booster Club)</td>
<td>Available</td>
<td></td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. **The HealthierUS Schools Challenge award**

The FSD was responsible for applying for the HUSSC award and recalled that the award brought positive recognition for the CNS department. This was especially important after receiving negative feedback about the school meal guidelines reform in 2012–2013. The FSD described:

It’s nice to have the recognition from a higher entity that says you’re doing what you’re supposed to do. The kids come back and say, “the food is nasty,” and you say, “we have to meet
APPENDIX L (continued)

or exceed the guidelines.” Now you have the HUSSC challenge to say, “look what we’ve done, we’ve qualified for the HUSSC challenge by meeting these guidelines.”

B. **Brief Chronology**

![Figure 20. Brief chronology of Texas case.](image)

C. **Findings**

This case centers on the FSD as the implementing actor, with the close involvement of the food service provider, Sodexo, and an ex-coach principal who is keenly interested in health and nutrition. The FSD spoke highly of Sodexo’s involvement, stating the company wanted to be “an industry leader in the service providing healthy options to kids,” while the principal spoke more of compromises that needed to be made with the company in order to meet his expectations. In addition, the TPSNP played an important role in giving the implementing actor the power to move the implementation activity forward.

1. **Conceptual framework**

The CIT hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 21) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.
APPENDIX L (continued)

2. **Implementing actor’s power sources**

   a. **State law**

      The TPSNP played a critical role in implementation and is repeatedly described as having a strong “stick” impact that facilitated implementation. First, the importance of having a policy on paper is described here by the FSD:

      Schools make decisions based on policy. The curriculum is based on policy. Even the salaries are based on school board policies. So as long as there’s a policy that is within hands reach, so you can actually print it out, put it on paper, and it’s the guidelines we’re following as a district. It helps to reinforce what we’re doing.

      Next, the “stick” or threat of penalty is what gives the FSD a voice at the table with administration, as leadership is concerned about the consequences of noncompliance with state law. The FSD leveraged this opportunity to boost his influence and communicate the intentions of the policy and develop stronger relationships across departments in order to create stronger interactions. As he described:

      Successful implementation comes from working together as a group . . . and you can’t just be one. It takes my department along with the business department along with the other department to make sure that things are done correctly. You have to have buy-in from the entire administration.

      Further, the FSD worked closely with the food service provider (Sodexho) that was also on board with taking a proactive approach to school food environment reform. He recalled that both Sodexo and he predicted school nutrition policy reform and started to take action early on:

      If you look at the direction that the Texas Food Nutrition Policy was going, Texas, California were beginning to have strict laws. So if you see that the policy is going to be implemented in five years, you obviously want to make more stringent policy so you’re already achieving the guidelines. You don’t do it when you have to. If you do it before, you’re getting the kids accustomed to it.

   b. **Authority actor (hard power) support**

      The implementing actor described support from both the principal and district administration as critical to the success of implementation. The assistant superintendent of finance was involved in decision-making for changes to the school meals and à la carte items. The FSD explained that it was very important to obtain his support due to the potential impacts of snack policy changes:

      I really don’t implement policy unless it’s approved by him. There’s always gonna be a financial impact to any changes that are made.

      In addition, the principal was a former coach who was involved in decisions about the types of food sold in the meal program, outside of the school campus, vending machines, and fundraisers. He spoke at length about his concerns for students having exposure to junk foods outside of the school.
APPENDIX L (continued)

campus. While the principal was relatively new to the high school, he offered support to the implementing actor due to his personal concern and values for health. In fact, even after receiving the HUSSC award, the principal often had concerns with items offered in the school meal program. At times, his stringency caused him to be at odds with Sodexo, as he described:

I know that Sodexo is a for-profit company, and I’m not a for-profit school and so their interests and my interests are not always the same, but I feel like we’ve worked well together on trying to make compromises.

Despite the principal’s involvement with school nutrition related issues and policies, he had not yet heard of Smart Snacks as of June 2014 (a month before the implementation due date). Instead, he asked if it was a federal mandate and then replied, “I’m sure we’re following it then,” followed by an assertion that the FSD would have ensured their compliance. In this way, the principal had strong concerns about the types of foods available on campus but lacked specific knowledge of the snack policy and also uniquely did not have any jurisdiction over any snacks venues.

c. **State technical assistance**

The FSD recalled that workshops and other resources provided by the TDA were critical sources of TA. He cited a state TA support consultant, who provided hands on support and was helpful in navigating implementation steps. The FSD also received resources to share with district administration, the principal, students, and parents. He recalled that he was able to more effectively communicate the policy changes and intentions using these resources.

d. **Sodexo food service**

Sodexo played a strong role in the overall school food environment and worked closely with the FSD. Ten years ago, Sodexo made a concerted effort to change the school food environment in this particular school district; one change was to put salad bars in every school. The FSD stated this led to the success of the snack policy implementation because it gave the students ample time to adjust to school food environment reform:

Kids are creatures of habits. If they see it on a regular basis, they’re more likely to try it, grab it. If one person says, “oh I like carrots.” And the next person says, “oh well if he likes carrots, I like carrots.” But it has to be there every day. You can’t expect a child to like something they’ve never seen before.

The relationship with Sodexo also provided the FSD and cafeteria manager with access to a network of other food service professionals who provide peer-to-peer TA support:

Sodexo has a partnership with over 25 school districts in the state of Texas. We have a nice network of people that we talk with on a regular basis. I also know some other people in other districts. So there’s always a constant conversation. Especially when the changes are coming down to make sure that everyone is on board.
APPENDIX L (continued)

In this way, Sodexo facilitated implementation by (1) participating in a proactive approach to school food environment reform, and (2) providing access to peer-to-peer networks, which were a critical source of TA for FSDs.

e. **Soft power**

The FSD was described by other actors as a “charismatic listener,” “expert who is always honing his craft,” and a professional who is “plugged into his constituents.” He used his influential position to go above and beyond his role in communicating and making impacts within and outside the school community. As the associate principal of operations stated:

You know, [FSD Name] is fairly visible and so he comes and asks for people’s opinions and I think he listens, and he’s not afraid to try different things, I think a lot of it is just really his department being open to experimenting to see what kids like and don’t like, and then try to take that information, operate within the laws that he’s allowed.

3. **Interactions facilitated by implementing actor**

a. **Communications**

The FSD is the conduit for communications—both internally in the school district (e.g., students, teachers, and administration) and externally (e.g., parents and the community). This communication enhances acceptance and awareness of the snack policies by altering the ways other actors understand the policy. To foster these strong interactions, the implementing actor is committed to effective communications with the administration at the district and school level. He described access to authority actors (communication to the top levels) as a strong facilitator in his implementation processes:

There’s always constant communication. There’s principal meetings. Being the director of the program, I have a seat at the table with the administrators. Some of your other school districts, it’s not organized that way. It’s kind of like Child Nutrition is the boot heel to the school, nobody cares what they do.

In addition, the FSD focused on communications to target actors about the policy, with a goal of improving knowledge while simultaneously improving relationships between his department and his constituents:

I’m one to go sit in the cafeteria, especially at the high school with the table and explain to them what’s going on. When you explain to them that it’s a requirement, it’s more well received . . . So you always start the conversation with, “hey this is a requirement we have to meet in order to keep providing meals for you.”

This quotation also highlights how the implementing actor leaned on the policy as the “requirement” in order to gain buy-in from the target actors. In this way, the FSD was the conduit for communication and interactions within the school and immediate target actors within the school food environment. In effectively delivering these communications, he relied on the state law as one source of rationale for change that he explained was “well received” by students.
b. **Communications by authority actor**

The FSD had a strong relationship with the principal, which created another avenue for communications from the authority actor. The principal was also focused on educating and communicating with parents, partly due to his belief that health changes need to start at home. He stated this is the most important part of making any nutrition policy changes:

> But the biggest part is just effectively communicating it to parents. And consistently communicating it to parents. Telling them, why you believe these things that you do . . . So I think that’s uh, it helps us to promote that message, and assures that we’re not trying to do something to them, we’re trying to do something with them. And that’s promote health among their students and for them as well.

Thus, while the principal was mostly unaware of the specifics of the snack policy, he broadly supported nutrition education and the role of schools. This personal value for nutrition meant that he supported the wellness policy activities and snack policy reform in general. He implied that schools may be more concerned about this than parents: “I think it’s huge. I think we’re probably as up on it maybe more so than parents. We work hard at it.”

4. **Ongoing enforcement and monitoring of the snack policy**

Stringent enforcement was a strong theme in this case, mainly due to the “stick” of the penalty of losing funding for the Child Nutrition program. The FSD gave examples where the TDA had withdrawn funds for the National School Lunch Program of other school districts because violations of the FMNV rule were observed during audits or reviews:

> In fact, at a high school last year, during the review there was a student who brought in, they were selling candy I believe in the cafeteria for a fundraising. And the Texas Nutrition Policy along with the National School Lunch Program say that during meal service, you cannot sell food of minimal nutritional value during lunch. So that student selling candy bars as a fundraising in lunch, this is at a high school, uh while the review was going on. All the meals that were counted that day as reimbursable meals, the revenue generated from those meals was revoked.

As a result of this story and others like this, district administration directed the CNS to oversee fundraisers and ensure that they met state and district snacks guidelines. A school group interested in selling food or beverage items first asked the cafeteria manager at the high school, who would then communicate to the FSD at the district level. The FSD described the potential losses that noncompliance penalty would cost:

> Any fundraising that has to do with schools always come across my table to make sure we’re in compliance. It’s put in place that way because there’s so many millions of dollars district-wide that the National School Lunch Program provides in order to maintain the food service. You running 86% free and reduced, that’s millions of dollars for reimbursement. So if you have one little mistake, they can take your reimbursement for a day, they can take it for a month! So a month of reimbursement is $500,000. If not more.
APPENDIX L (continued)

In addition, the principal was heavily involved with fundraising changes and helped to enforce and encourage nonfood fundraising and selling of items that did not undermine the snack policy:

Yeah, you know if they want to sell lanyards, or they wanna do a fundraiser that involves student-teacher faculty basketball game or something like that, um, you know we try to look for other ways for them to raise funds, but not by you know, making our kids, you know, less healthy.

The FSD felt that by requiring CNS to be responsible for areas outside their purview, it increased the visibility and relationships between other departments:

If you require interactions with other departments, they (Child Nutrition Services) no longer become the boot heel, they become an entity, like I said, has the potential to earn hundreds of thousands of dollars but we gotta be able to work together.

At the same time, the FSD saw the need for the responsibility of food service policy implementation to be more accountable at the district level:

So now we need to make the district responsible for implementing food service policies. Now we’ll say at the end of the year, if there’s a negative balance, it’s not the Child Nutrition Services that absorbs that, the general funds of the school districts absorbs. Kind of like a library fund. If there’s a library fund, the school has to pay off that library fund. So now they’ve made the school district responsible, there’s guidelines in place where the district has to act instead of just saying ‘I don’t care what you do.” Now there needs to be more oversight, “we need to pay attention to what you’re doing.”

Despite the principal’s passion for supporting school food reform, he confirmed that his responsibilities toward implementation, monitoring, and enforcement activities were minimal:

You know, we talk about how it’s going to be implemented and then we just move forward. And usually, it affects people in food services and that type of thing, more than it impacts me.

Finally, the district administration recognized that the financial penalty was threatening enough to warrant more oversight. However, according to the FSD, the district ultimately was not held accountable. The FSD’s views highlighted the power that district accountability would have over the school food environment if they were no longer able to say “I don’t care what you do.”

Further, the associate principal of operations described the challenges of needing to sell fundraising items to support school programs:

As of now, during a school day, we can’t sell anything during the school day, it’s all after school generally, and they, being the school board, they understand the need for fundraising, and the difficulties of you know, of kids and the financial situations, and so we have to do a lot of fundraising on our own, to support several of the programs, and so it’s’ kind of a Catch-22, either we sell it and raise the money, or you don’t fund the program, it’s a difficult spot to be in, and as of now they’re fairly lax on what we sell. There are some chips and those types of things being sold.
His comment revealed that fundraising items sold outside of the school day did not meet guidelines and provide opportunities to access junk foods outside the school day.

5. **Motivations**

All respondents talked about adolescent obesity as being associated with social inequities. This was not unexpected given the high percentage of FRP meal eligibility at the high school and school district in general. As the coach/associate principal stated:

Yes I think it [obesity] impacts us greatly, a lot of our kids are in poverty and so therefore they don't have the opportunities to make different choices as far as when it comes to selection of foods, often times their parents will go with the most economical and generally that’s not the healthiest eating habits. So I think it impacts our school greatly.

When asked if removing junk foods would impact students’ academics, the principal replied: “I couldn’t say for sure. I know that, not eating impacts their academics.” As a result of this belief, he implemented a universal breakfast program at the school three years ago and reported that since that time, he has seen steady improvement in the academics: “And, I just have to believe that you know, that has something to do with it, a consistent way of working with kids when it comes to assuring that they eat and um, that they’re ready to learn, so it’s important.” Respondents in this case explained that childhood obesity was not caused by the school food environment. The cafeteria manager stated that obesity “came from the home” and was best addressed via nutrition education in schools. The coach/associate principal echoed the statement that the role of schools was more to provide education that led to both changing of eating habits and to long-term financial stability, which in turn led to healthier living:

We can’t be the solution to it [obesity], you know, the education will be the solution. Your education provides opportunity, hopefully, and then that provides better standard of living. A lot of it goes back to what we learn as kids, if you ate cereal loaded with sugar in the morning and that’s what you think is how a good breakfast looks like, generally they’ll have their kids eat the same thing. We do owe it to them if there’s an educational component we can definitely help with.

To this end, nutrition education for parents was reported as an important role of schools in addressing the health of children. All respondents talked about engaging parents as (1) part of the role of schools, and (2) an important component of addressing students’ health. The statement above of “we owe it them” reveals a strong personal value and moral obligation to act on behalf of students. Further, the cafeteria manager stated:

You can’t control the household but you can kind of control what you’re serving at the cafeteria, and trying to educate ‘em and maybe by the time they get home they can start to educate their siblings and their parents. We try to do programs for parents, so they can see, and we have all the marketing so they can understand what’s going on with their health.
APPENDIX L (continued)

The principal’s belief that healthy eating should be mainly targeted at home has led him to focus on educating parents. He did this heavily at the middle school prior to starting at the high school two year ago. As he stated, the high school will be more challenging but he still felt it was important to do:

So, um, we want to promote it at the high school level, I think it’s gonna be a little more challenging to promote it in that way, because parents aren’t as you know, involved with their high school students, as they are in middle school. But, we’re still gonna work on that.

D. Other Interesting Findings:
1. Manufacturers are slowly creating products that meet school meal and Smart Snacks guidelines

The FSD described how manufacturers were creating new products for school standards (e.g., Tyson chicken low sodium) but these were not yet appropriate for the general public because the taste for salt is high. Thus, a separate line of products are being manufactured for school meal/à la carte sale:

Back in the day, we’d get an 18-wheeler that pulled up in the back of the school, we’d get raw chicken, commodity chicken. Now, we no longer get raw chicken, that is sent to Tyson, then Tyson gives us a product that meets the guidelines. A lot of times that product is the same product that you’d see in the shelves on the grocery store but it’d just be repackaged. So the Tyson chicken nuggets that you see in the frozen section of the grocery store. What happened is, when they changed all the guidelines, they can no longer use that shelf item. They had to come up with a school-specific item that met the sodium requirements, meat alternate requirements and bread and grain requirements. So now they have to remanufacture a whole lot of products. And the new product can’t go into the stores because it’s not widely popular right now. The only thing you wanna put in stores are ones that sell.

2. Challenges posed by the community food environment

A convenience store opened up across the street and kids are going there to get junk foods, a concerning development for the principal. Texas Nutrition Policy states a child can bring foods in but not share it with his peers. According to the principal:

We just got, about a year ago, a Dollar General right across the street, so the snacks that kids are going and getting before they come to school are not very healthy. So we’re planning to work on a policy to see if we can remedy that situation. But it’s ahhh, they might as well call it Dollar Diabetes, it’s awful, and I’m really, I’ve got to figure out a way to kind of break our kids addiction to it.
Figure 21. Adapted conceptual framework—Texas case.
APPENDIX M
Case Summary—Virginia

Highlights of Case:

- Weak state law
- Supportive principal and proactive FSD worked closely together
- Unique organizational structure of district that allows for examination of how one school within a district of 18 schools was able to obtain HUSSC award

A. The Context

1. Demographics

<table>
<thead>
<tr>
<th>Region</th>
<th>State Obesity %</th>
<th># of schools in district</th>
<th>Locale</th>
<th>Total # students in high school</th>
<th>Ethnicity (School level)</th>
<th>FRP % (School level)</th>
<th>HUSSC: SL Award</th>
</tr>
</thead>
<tbody>
<tr>
<td>South east</td>
<td>29.8</td>
<td>18</td>
<td>Suburb: Small¹</td>
<td>1294</td>
<td>75% White</td>
<td>18%; ~55% per FSD²</td>
<td>Gold</td>
</tr>
</tbody>
</table>

2. Highlights of state law and district wellness policy

The state law for competitive food and beverages was adopted in the 2010–2011 school year and addresses vending, school stores, and à la carte food items only (with the exception of restricting soda as an à la carte item). The standards are applicable to items sold during the school day. The law stipulates that the board of education shall adopt either AHG or IOM recommendations for food standards; however, there are no updates to this law for the 2013–2014 school year. Further, the state strength score for snack policies is 14 and ranks 5th amongst the eight states included in this study.

The district adopted a local wellness policy in 2006, but according to the former FSD, the principal also initiated stronger school-level criteria several years later for snack items in order to meet the HUSSC award. I was not able to obtain a copy of the high school specific standards from respondents. The district-level snack standards are applicable to vending machines (for a limited number of nutrients)

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1. Suburb: Small is defined by the National Center for Education Statistics as a “territory outside a principal city and inside an urbanized area with population less than 100,000.”

2. The FSD verified FRP% for the school as I found some discrepancies between NCES data and these self-reported values.
APPENDIX M (continued)

and fundraisers. Further, the policy designates the principal to monitor fundraising items, stating that items should “promote wellness and conform to the definition of healthy food.” The superintendent is charged with overseeing implementation of the overall wellness policy.

The policy states that implementation measures should include periodically measuring and publicly reporting the results of the assessment, as well as measures of how the policy compares to model policies and progress made in achieving implementation.

3. Key actors interviewed

The organizational structure at this district is unique in that the food service staff at each school reports directly to the principal, rather than to a centralized CNS department at the district. The current FSD currently is treated as a consultant to principals. The former FSD who implemented the HUSSC criteria stated that she received support from the principal but otherwise was able to complete the tasks on her own.

| TABLE XXXVII |
| TITLES AND DESCRIPTIONS OF ACTORS |

<table>
<thead>
<tr>
<th>Titles</th>
<th>Description of Role</th>
</tr>
</thead>
<tbody>
<tr>
<td>Food Service Director (former)</td>
<td>• Implementing actor (initial implementation)</td>
</tr>
<tr>
<td></td>
<td>• Local wellness champion (former)</td>
</tr>
<tr>
<td></td>
<td>• Applied for HUSSC award</td>
</tr>
<tr>
<td></td>
<td>• At the district for 10 years</td>
</tr>
<tr>
<td>Food Service Director (current)</td>
<td>• Implementing actor (ongoing enforcement and Smart Snacks implementation)</td>
</tr>
<tr>
<td></td>
<td>• Hired in 2011–2012 as a result of HHFKA to coordinate district-wide Child Nutrition Program</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC award for the district</td>
</tr>
<tr>
<td>Health and Physical Education Teacher</td>
<td>• Support actor</td>
</tr>
<tr>
<td></td>
<td>• 11 years at the high school</td>
</tr>
<tr>
<td></td>
<td>• Teaches mandatory health education class for students; nutrition discussed in class but not an heavy emphasis</td>
</tr>
<tr>
<td></td>
<td>• Not involved with HUSSC application</td>
</tr>
<tr>
<td></td>
<td>• Previously involved with wellness activities</td>
</tr>
</tbody>
</table>

Cafeteria Manager declined.
Health Education Teacher (newly appointed Wellness Champion) declined interview.
Former and current principals declined interview (current principal not involved during HUSSC application).
APPENDIX M (continued)

4. **Key documents**
   - District wellness policy (2006)
   - District Facebook page
   - District CNS website pages
   - Local newspaper article (2012)

5. **Wellness committee**

   The district does not have a formal wellness committee at this time. The current FSD stated that since joining the school, she has observed that the Student Health Advisory Board meets to create initiatives around tracking exercise and comparing across schools, but the group is not involved in any food and nutrition-related initiatives. The former FSD also noted that there was no committee at the time she spent at the school.

6. **Other nutrition-related programming**

   The current FSD noted that the district did not have an official Farm to School program but followed a local procurement program called Favors that provides free local produce to local schools. The FSD noted there was no designated nutrition education component to this program. No other school programming was mentioned by the actors.

7. **Snack food and beverages available**

   **TABLE XXXVIII**

<table>
<thead>
<tr>
<th>Venue</th>
<th>Status</th>
<th>Actor with Oversight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vending machines</td>
<td>Available (outside of SD)</td>
<td>Principal</td>
</tr>
<tr>
<td>À la carte</td>
<td>Available</td>
<td>FSD/Cafeteria Manager</td>
</tr>
<tr>
<td>School Stores</td>
<td>Available (outside of SD)</td>
<td>Marketing class</td>
</tr>
<tr>
<td>Fundraising</td>
<td>Available (outside of SD)</td>
<td>Principal</td>
</tr>
<tr>
<td>Concession/ evening events</td>
<td>Available (outside of SD)</td>
<td>No oversight</td>
</tr>
<tr>
<td>(through Booster Club)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Campus status</td>
<td>Closed</td>
<td></td>
</tr>
</tbody>
</table>

8. **The HealthierUS Schools Challenge award**

   The current FSD commented that school meal guidelines reform had “bad press” at her school and received negative feedback from students. She joined the school district at this time:
I think that because they hadn’t been visited in such a long period of time, it gave a very bad name to the press and the students that it was a traumatic change overnight. So it was hard for the students to understand why overnight did things change. I don’t think they were explained very clearly because they kept saying they were getting less servings on their plate, and actually they were getting more fruits and vegetables on their plate as previously offered. So I think press was bad for it.

When the school district received the HUSSC award, the former FSD recalled a celebration with principals, faculty, and staff. While it was not explicitly stated that the award helped the reputation of the CNS department, the former FSD noted that the whole school community attended the celebration.

B. **Brief Chronology**

![Figure 21. Brief chronology of Virginia case.](image)

C. **Findings**

The story of implementation is split into action steps to meet HUSSC criteria that were executed by the former FSD who described a relatively straightforward process involving only herself and a supportive, hands-on principal and student body. As the current FSD explained, the principal in this case had a lot of power due to the decentralized structure of the school district. This partnership allowed this high school to be the only one in the district with HUSSC status. The principal helped to facilitate implementation by adopting high-school-specific criteria to align with HUSSC:

We have a wellness policy in our policy manual from the county. However, it wasn’t as strict as it needed to be, for the guidelines for the Gold Award. So the principal initiated building criteria as well, guidelines, so that they would be compliant.

More recently, the former FSD moved to another school and the current FSD was hired as a result of the federal school meal guidelines reform. She explained:
APPENDIX M (continued)

With the new Healthy, Hunger Free Kids Act coming down, the school district realized they need to be more proactive and get a Registered Dietitian on board in order to be compliant with the new meal pattern.

The current FSD described challenges with her position because there was limited uniformity across schools. Her role was more of a consultant to the principals who had ultimate oversight over all snack venues, with the exception of the cafeteria items. While she was able to centralize the school meal program offerings, there are still challenges with snack venues for each school.

1. **Conceptual framework**

   The CIT hypothesizes that policy implementation is a local actor-interaction process consisting of dynamic interactions between actors. The adapted model outlines the key actor groups and salient constructs. The arrows in this framework (Figure 22) represent the key interactions and numbers will correspond with the following text. The framework is hierarchical, starting with federal/state level factors and flowing downward toward district- and school-level actors. However, as the arrows indicate, the relationships are often bidirectional, indicating that while the framework goes from top to bottom, the influences of some factors are shaped by and reshape the process. The target actor group (students) and parents are in dotted lines as they were discussed by other actors but not directly interviewed for this study.

2. **Implementing actors’ sources of power**

   a. **State technical assistance**

      The former FSD described how the support of the state consultant was critical to initiating her application for the HUSSC award:

      What motivated me? Just the challenge I guess, of the lady from the Virginia Department of Education, telling me, “you could get this, you could do this, this is what you need to do.”

      The state consultant provided tailored resources and tips for the former FSD to improve upon her current program, as well as extend her focus outside of the school meal program. The Virginia State Department of Education also provided helpful resources and workshops to enhance her technical knowledge of applying for the HUSSC award and for the details of the upcoming Smart Snacks guidelines.

      The current FSD continued with ongoing implementation toward Smart Snacks standards and relied upon the state department for education. One key resource used by both former and current FSDs is the Smart Snacks Calculator that was introduced to them from the state department (although it is a federal resource).

   b. **Peer-to-peer technical assistance**

      The current FSD relied heavily on peer-to-peer TA and visited other school districts to share information and best practices about Smart Snacks implementation. She stated that this was a valuable form of TA for her actions. The former FSD stated that she did not have a lot of
opportunities for peer-to-peer TA because she started the process earlier than most school districts and there were few FSDs who had tried to apply for the award at that time. She was a pioneer in her district: “there really wasn’t anybody around me that I knew that had received the award. We were the only ones in my district that had won or even tried to get it.”

c. **Soft power (influential character)**

Implementation of the snack policy was initiated as a result of the FSD taking on the challenge of the HUSSC award. This case is a great example of a former FSD who was passionate about the work and her school community. In addition, she described here that she was able to do most of the work on her own and the technical aspects were mostly in her domain:

I really care about my job and my students and my ladies that work for me . . . but, no, and I can honestly say, I mean that I didn’t have much support on this . . . . They couldn’t help because they don’t know, they didn’t know a whole lot of what was needed . . . And I didn’t need it cuz there was a lot that a lot of principals don’t know anything.

While the former FSD noted that the principal adopted school-specific standards to align with the HUSSC criteria, she did not refer to this on-the-books policy as an important factor in moving implementation forward. It is possible that she did not need to rely on this because she was already receiving guidance from the state department.

3. **Interactions generated by the implementing actor**

As noted by the former FSD, the support of the school community was critical to the full acceptance and implementation of the snack policy. In agreement, the HE teacher attributed “everyone coming together” as the main key ingredient of success for this policy. She reported that the former FSD was the key actor who facilitated these interactions:

I think when [former FSD] decided she was wanting to try and go for the Gold Award, she had her staff on board, she got the administration on board, and then different, the staff, the kids, it just worked.

The former FSD noted that she received a lot of support from her staff for both the school meal guidelines and the à la carte changes. The staff enjoyed the school food reform process and saw the benefits of a more robust department:

My staff was very successful, they wanted this as much as I did, and they wanted more students eating, and that also saves positions . . . . They loved their jobs, they liked coming in, doing the different things they were doing instead of the same old Sloppy Joe on a bun.

a. **Communications to target actors and parents**

The former FSD communicated snack policy changes to the principal, who ensured that the messages were added to newsletters to parents. The current FSD utilized the public relations department of the district to communicate any snack changes; these are relayed in press
APPENDIX M (continued)

releases to the general public, billboards, school newsletters to parents, and other avenues. The current FSD attributed the lack of resistance from parents to these efforts:

I’m at the board office, where my office is in the administration building. We’ve received minimal calls from families . . . I mean, really I thought we were gonna have a lot more than what we have gotten, but we’ve received minimal calls or questions. Like I said, we did a lot of PR work.

b. Engaging target actors

The former FSD attributed her success to cultivating relationships with the students. She enjoyed working with students and felt this made her meal program successful and supported by the school community. Her department’s existing reputation allowed for better cooperation when she went to implement the HUSSC criteria. The former FSD regularly engaged students by giving tours of the kitchen, educating them on the regulations, and conducting product and satisfaction surveys. As she explained:

And then . . . it was a lot of the health classes, they would come during one of the sections of their health, and they would come through and I would show them and tell them that you could buy this at your local grocery store, everything I was serving, the calorie counts and the packages they came in, and about me buying local produce when it was available. There was a lot of educating at [school name] before this even happened and throughout til I left.

4. Ongoing enforcement and monitoring for snacks policy

The organizational structures of the district create challenges with district-wide enforcement and monitoring, according to the current FSD. Each building principal is responsible for enforcement of the snacks policy; however, this is recognized as problematic due to the limited knowledge of the principal on snacks guidelines.

Well, one time the power went out and the vending machine was on, so I called the company myself and was like, “hey you need to check the timers on these vending machines.” But probably the principal still has control over that because they get money from the vending to spend on things throughout the year. They get all the money for the vending, the cafeteria doesn’t. So really who has the say over what is being sold is the principal of the school.

For example, the policy stated vending machines cannot be on during the day but the FSD had caught instances when this was not the case:

Like I said, sometimes you go up to the school and the vending is on and they tell you they didn’t know about it.

In this way, the current FSD acted as the enforcer when she was able to visit the school; however, the remainder of the time this duty was left to the principal. She stated that in moving forward with the Smart Snacks guidelines, she could not just rely on the vending contractor to provide the right products, she must provide oversight and check the sales sheets provide closer monitoring.
APPENDIX M (continued)

5. **Motivations**

The former FSD had strong assertions that school food service was unfairly targeted as a contributor to the obesity epidemic:

I tell everyone to this day. School breakfast and school lunch have nothing to do with our children’s obesity. It’s not because of what’s we’re serving them it’s because of what they do after they leave school. Going home and sitting on the couch, eating fast food for dinner and on the weekends. But I feel that our schools are not the reason for the obesity.

The current FSD agreed about the role of the home environment and reported that schools had a role but it was limited due to the number of days that they could influence students’ intakes. As she described:

I think we do a wonderful job offering healthy nutritious meals to students and staff here. But we’re only in school 185 days a year. If the habits are not taken home, and the parents aren’t on board with helping promote health and wellness at home, it’s very hard to make a change in a student with just lunch for 185 days.

When asked about whether adolescent obesity is a problem at the high school, the current FSD responded that anthropometric data are gathered but she does not review those data. She did not comment on her perceptions of adolescent obesity rates beyond these data:

I don’t have any statistical data on that, for or against it. So I really can’t make a call on that. I know they collect all the information. BMI, height weight, waist circumference for students.

Their perspectives differed with respect to the snack policy. The former FSD felt that the snack policy was overly stringent and that high school students compared to elementary school students, should be offered a wider range of items:

I think it should be up to the individual. As long as you are offering it, let them decide. Especially at a high school level, because I just feel that they’re becoming young adults and let them decide if they wanna eat healthy instead of making them.

The current FSD, however, felt the recent Smart Snacks policies were warranted and long overdue, given the quality of vending machine items that she observed in other schools within the district. It was also interesting that her perspective was based upon her personal dietary practices:

I agree with that. I think that vending should be kind of like what we’re doing with the produce and fresh things like that. No sodas. Even myself, I don’t drink soda. We drink a lot of water and juices and things like that. I do believe that some of the vending is uncalled for. Like the pop tarts and things.
APPENDIX M (continued)

The HE teacher linked the role of schools in promoting healthy eating to supplementing what they may not be receiving at home. Improving the school foods is about providing an exemplary food environment that students may be lacking in their home:

They may not have that at home. Unfortunately, not everybody’s financial circumstances warrant the fresh stuff or some of the choices that we have.

In this way, she felt that schools could provide the “fresh stuff” that students may not see at home.
Figure 23. Adapted conceptual framework—Virginia case.
CITED LITERATURE


# VITA

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